HAZARDOUS SUBSTANCE INDICATOR PARAMETER TECHNICAL MEMORANDUM

REMEDIAL INVESTIGATION (RI)/FEASIBILITY STUDY (FS)

McINTOSH PLANT SITE
OLIN CORPORATION
McINTOSH, ALABAMA

Prepared for
Olin Corporation
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EXECUTIVE SUMMARY

Olin Chemical Corporation is conducting a Remedial Investigation/Feasibility Study (RI/FS) at their McIntosh, Alabama, facility. A human health risk assessment is being conducted as part of the RI/FS. An initial step in the human health risk assessment is to define the chemicals of potential concern at the site. This Hazardous Substance Indicator Parameter Technical Memorandum was prepared in conformance with current EPA guidance (EPA, 1989), which requires development of a list of chemicals of potential concern. The list is presented along with the documentation and rationale used to select the chemicals of potential concern at the McIntosh site.

For the purposes of defining the chemicals of potential concern, selected sediment samples, on-site groundwater samples and surface water samples were analyzed for organic and inorganic constituents using the procedures outlined in the EPA Contract Laboratory Program (CLP) Statements of Work (EPA, 1990b and 1990c). The completed human health risk assessment will also include the analytical data from fish tissue and off-site groundwater (domestic) wells, which are not available to date. However, currently available sediment, surface water and groundwater data should provide the necessary data to define the chemicals of potential concern for all affected media at the site.

A list of parameters considered for the list of chemicals of potential concern was developed from the CLP data. The parameters were subjected to toxicity screens based on their potential carcinogenic and noncarcinogenic properties. The chemicals of potential concern list was then defined from the toxicity screens as the chemicals that showed a contribution to total carcinogenic or noncarcinogenic hazard of greater than 1 percent. Additional chemicals without reported EPA carcinogenic or noncarcinogenic toxicity factors were also included on the list.

The list of chemicals of potential concern will be used in further identification of exposure pathways, identification of human receptor populations, identification of ecological receptors, exposure point location identification, development of contaminant intake for receptors, toxicological assessment and finally, risk characterization and potential remediation of the site. Since this list has been developed early in the RI/FS process, it is subject to change as additional data are obtained form the site.

The list of chemicals of potential concern is:

1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,4-Dichlorobenzene
Alpha-BHC
Antimony
Arsenic
Benzene
Beryllium
Bromodichloromethane
Cadmium
Chlorobenzene
Chloroform
Chromium
Copper
Cyanide
Hexachlorobenzene
Lead
Mercury
Nickel
Pentachlorobenzene
Pentachloronitrobenzene
Selenium
Silver

1.0 INTRODUCTION

Olin Chemical Corporation is conducting a Remedial Investigation/Feasibility Study (RI/FS) at their McIntosh, Alabama facility. A human health risk assessment is being conducted as part of the RI/FS. An initial step in the human health risk assessment is to define the chemicals of potential concern at the site. This Hazardous Substance Indicator Parameter Technical Memorandum was prepared in conformance with current EPA guidance (EPA, 1989), which requires development of a list of chemicals of potential concern. The list is presented along with the documentation and rationale used to select the chemicals of potential concern at the McIntosh site.

The Olin Chemicals McIntosh plant is located approximately one mile east-southeast of the town of McIntosh, in Washington County, Alabama. A site location map is presented in Figure 1. The property is bounded on the east by the Tombigbee River, on the west by land west of U. S. Highway 43, on the north by the Ciba-Geigy Corporation plant site and on the south by River Road.

Olin operated a mercury cell chlorine-caustic soda plant on a portion of the site from 1952 through December 1982. In 1954, Olin began construction of a pentachloro-nitrobenzene (PCNB) plant on an adjacent portion of the site. The plant was completed and PCNB production was started in 1956. The McIntosh plant was expanded in 1973 to produce trichloroacetonitrile (TCAN) and 5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole (Terrazole). The PCNB, TCAN and Terrazole manufacturing areas were collectively referred to as the Crop Protection Chemicals (CPC) plant. In 1978, Olin constructed a diaphragm cell caustic soda/chlorine plant which is still in operation. The CPC plant and mercury cell plant were shut down in late 1982. The McIntosh plant continues to operate and produce chlorine, caustic soda, sodium hypochlorite, sodium chloride and blends hydrazine.

The Olin McIntosh plant currently monitors and reports on numerous facilities permitted through the U.S Environmental Protection Agency (EPA) and the Alabama Department of Environmental Management (ADEM). These include water and air

permits as well as a Resource Conservation and Recovery Act (RCRA) post-closure permit (including a groundwater corrective action pumping/treatment program), Solid Waste Management Unit (SWMU) closures, three injection wells for mining salt and a neutralization/percolation field.

In September 1984, Olin's McIntosh plant site was placed on the National Priority List of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) or "Superfund." Groundwater contamination at the site has been established based on the results of various investigations. Mercury and chloroform are the principal contaminants identified at the site. Mercury contamination was evidently caused by the operation of the mercury cell chlor-alkali plant during the period 1952 to 1982. The chloroform contamination is probably a degradation product from the operation of the CPC plant from 1954 to 1982.

Investigations have also indicated contamination in a 65-acre natural basin, herein referred to as the "basin," located on the Olin property east of the active plant facilities. This basin received plant wastewater discharge from 1952 to 1974.

DEVELOPMENT OF RI/FS SCOPING DOCUMENTS

Two operable units have been designated for the facility. Operable Unit 1 (OU-1) is the RCRA plant area (all of the Olin property except the area defined as OU-2). Operable Unit 2 (OU-2) is the basin, including the wetlands within the Olin property line and the wastewater ditch leading to the basin. Figure 2 is a facility layout map delineating the boundaries of the two operable units.

In November 1989, Olin submitted a Remedial Investigation/Risk Assessment (RI/RA) report to EPA for the McIntosh facility (ERM, 1989). This report was prepared to present all relevant data, interpretations, findings and conclusions arising from previous groundwater and soils investigations, the ongoing RCRA groundwater corrective action program, and other environmental investigations that have been conducted by Olin at the McIntosh facility.

On December 5, 1989, representatives of the EPA met with Olin representatives to discuss the McIntosh site, including the adequacy of Olin's previously submitted RI/RA report (ERM, 1989) and an Administrative Order by Consent for Olin to conduct further work. The EPA indicated it would determine the adequacy based on: 1) a review of the data to ascertain completeness and 2) a determination as to whether the appropriate Quality Assurance/Quality Control (QA/QC) protocols were met during the collection and analysis of the data presented in the RI/RA report.

On January 15, 1990, Olin received a special notice letter from the EPA announcing EPA's intent to conduct an RI/FS beginning in June 1990. Olin was invited to respond to EPA with a Remedial Investigation and Feasibility Studies (RI/FS) Scope of Work to provide a basis for further negotiations. Olin submitted a draft Scope of Work to EPA on March 15, 1990. On April 9 and April 10, 1990, Olin and its consultants met with EPA Region IV representatives in Atlanta and discussed this draft. In response to comments by EPA, Olin revised the Scope of Work and submitted the final draft to the EPA on April 25, 1990.

On May 2, 1990, Olin signed the Administrative Order by Consent (Consent Order) issued by EPA for the preparation, performance and oversight costs for the RI/FS at the McIntosh plant site. The final Scope of Work was attached to the Consent Order, which became effective May 9, 1990. A Work Plan was developed in partial fulfillment of the work items to be performed under the jurisdiction of the Consent Order. The amended Work Plan was submitted to EPA on May 25, 1991 and approved on July 17, 1991.

This Hazardous Substance Indicator Parameter Technical Memorandum is one of the submittals listed in the amended Work Plan for work to be performed under the Baseline Risk Assessment. This memorandum was prepared in accordance with EPA guidance in order to develop a list of chemicals of potential concern at the site. Since it was prepared early in the RI/FS process, the list is subject to change as additional data are obtained and evaluated.

2.0 SITE BACKGROUND AND SETTING

The information on the site background and setting presented in this section has been obtained from the ERM Remedial Investigation/Risk Assessment (RI/RA) report previously submitted to EPA.

The regional setting for the site is the East Gulf Coastal Plain Physiographic Province. Specifically, the 1500 acres that comprise the Olin property are within the Southern Pine Hills District.

The Olin McIntosh plant is an active chemical production facility. The main plant and associated Olin properties cover approximately 1,500 acres, with active plant production areas occupying approximately 60 acres. Current active facilities at the plant include: a diaphragm cell chlorine and caustic production process area; a caustic concentration process area; a caustic plant salt process area; a hydrazine blending process area, shipping and transport facilities; process water storage, transport and treatment facilities; and support and office areas. Beyond the active production facilities, the Olin property is heavily forested. A basin area is located on the Olin property, adjacent to the Tombigbee River and east of the active plant facilities.

2.1 OPERABLE UNIT 1

Operable Unit 1 is all Olin property excluding the area designated as Operable Unit 2. Within OU-1 are the following closed, inactive and active Solid Waste Management Units (SWMUs):

1. Stormwater pond
2. Brine filter backwash pond
3. Pollution abatement (pH) pond
4. Weak brine pond
5. Mercury waste pile storage pad
6. TCAN hydrolyzer

7. Mercury drum storage pad
8. Chromium drum storage pad
9. PCB/Hexachlorobenzene storage building
10. Hazardous waste drum (flammable storage pad)
11. Sanitary landfills (two)
12. Old plant (CPC) landfill
13. Inactive ash ponds (two)
14. Active ash pond
15. Lime ponds (two)
16. Diaphragm cell brine pond and overflow basin
17. Hexachlorobenzene spoil area (removed)

[Note that EPA is conducting a RCRA Facility Assessment (RFA) to determine if the above list of SWMUs is complete.]

There have been several soil investigations conducted at the Olin facility for plant construction projects. In 1975 Dixie Laboratories completed 40 soil borings at the facility to a depth of 30 feet (Dixie, 1975). The investigation included general geotechnical soil testing (e.g., specific gravity, moisture content, Atterberg limits, unconfined compression strength and permeability). The soils were also tested for pH. Law Engineering Testing Company (1976) also conducted a geotechnical investigation. Thirty borings were completed to a maximum depth of 50 feet. Soil samples were tested for geotechnical properties and soil pH. The Dixie and Law investigations provide extensive data on the near-surface stratigraphy and physical properties of the near-surface soils.

In 1976, an extensive Environmental Impact Study (EIS) was conducted by J. B. Converse, Inc. and Betz Environmental Engineers under a third-party agreement between Olin, EPA Region IV and the contractors (Betz and Converse, 1977). The purpose of this EIS was to evaluate the impact of the construction of a chlor-alkali diaphragm cell process at the McIntosh plant site. With minimum environmental impact indicated, chlorine and caustic capacity was increased in 1977. The EIS provides extensive information on air quality, topography, geology, soils, climate, terrestrial

ecology, surface water, aquatic ecology, groundwater and socioeconomics for the McIntosh area.

In 1980, Olin Corporation initiated an internal program to determine whether any groundwater contamination existed onsite. The program included the installation of 43 monitoring wells, 12 of which were for compliance with RCRA regulations for detection monitoring of hazardous constituent releases from Solid Waste Management Units (SWMUs). The result of Olin's study revealed contamination of the groundwater by chlorinated organic compounds and mercury.

In March 1982, Soil and Materials Engineers, Inc. (S&ME) was retained by Olin to perform a hydrogeological investigation of the McIntosh site to assess the migration and extent of organic contaminants in the groundwater (S&ME, 1982). The investigation included the installation of 32 additional monitoring wells and groundwater sampling of both new and existing wells. The field investigation was completed in August 1982, with the final report submitted to ADEM and EPA in November 1982. The report established the direction of groundwater flow and defined the hydrogeological parameters of the area. The study also identified two plumes of chlorinated organic contaminants (predominantly, chloroform, benzene, chlorobenzene and dichlorobenzene) in the Alluvial Aquifer. The hydrogeological data indicated this aquifer is separated from the deeper Miocene Aquifer by a low-permeability clay aquitard. The report further indicated that this aquitard inhibits downward migration of the contaminant plumes.

To further define the migration of the plumes identified by S&ME, Olin Corporation installed 14 additional monitoring wells between February and March of 1983.

During the period from 1982 to 1986, Olin closed the RCRA regulated units at the McIntosh plant. The sampling programs associated with these closures provide data regarding the potential mobility of constituents as indicated by the RCRA Extraction Procedure results. Soil sampling was conducted to fulfill the clean closure requirements for the RCRA surface impoundments.

Since 1984, Olin has continued its RCRA groundwater monitoring programs. Ten additional monitoring wells have been installed on the eastern perimeter of the plant to further define the migration of contaminants to the east/southeast. In July 1987, construction was completed on the groundwater Corrective Action Program (CAP). The five-well system became operational in August 1987. Olin is currently conducting compliance point and corrective action monitoring. The monitoring results are submitted to EPA in semiannual reports.

2.2 OPERABLE UNIT 2

Operable Unit 2 consists of the basin (65-acres), the wetlands within the Olin property line and the wastewater ditch leading to the basin. The basin is a natural feature lying within the flood plain of the adjacent Tombigbee River. During the seasonal high water levels (approximately 4 to 6 months per year), the basin is inundated by, and thus becomes contiguous with, the adjacent river.

From 1952 to 1974, plant wastewater discharge was routed through the basin and then to the Tombigbee River. In 1974, the discharge was rerouted directly to the discharge channel of the basin bypassing the basin itself. The discharge channel of the basin is approximately 800 feet long (during the non-flood season) and flows towards the Tombigbee River. The wastewater ditch currently carries the NPDES discharge toward the Tombigbee River and stormwater runoff from the east and southeast non-manufacturing property.

In 1988, Olin completed the Basin Study Report. The study was done to provide information for the remedial investigation in accordance with CERCLA and in response to the Forward Planning Study of 1986. Sampling of both sediment and basin water was conducted on December 8 and 9, 1987, under the observation of EPA Region IV

officials. In addition to chemical analyses, temperature and pH profiles were obtained. The analytical parameters for the basin samples included:

Water	Sediment
Total Mercury	Total Mercury
1,2-Dichlorobenzene	Soluble Mercury
1,4-Dichlorobenzene	1,2-Dichlorobenzene
Hexachlorobenzene	1,4-Dichlorobenzene
Pentachloronitrobenzene	Hexachlorobenzene
	Pentachloronitrobenzene

The mercury level detected in sediment ranged from <0.3 to 60.5 mg/kg across the basin. However, a duplicate sample analysis revealed 9.0 mg/kg of mercury at the same location as the 60.5 mg/kg value. Other sediment values ranged from 0.4 mg/kg to 25.5 mg/kg of mercury. Pentachloronitrobenzene (PCNB) was detected in three sediment samples, up to a maximum concentration of 14.5 ppm. Detection of PCNB was not confirmed in two of the three samples by replicate analysis. Hexachlorobenzene (HCB) was detected in five of the ten sediment samples. The detectable concentrations of HCB ranged from 1.9 to 114 mg/kg with a detection limit of 0.66 mg/kg. All detectable concentrations of HCB were verified with replicate analysis. The maximum concentration, 114 mg/kg, was 69.2 mg/kg in the replicate sample, thus the average value for this sample was less than 100 mg/kg (Olin, 1988).

Mercury in water was detected at or below the drinking water standards and ranged from 0.4 μg/l to 2.0 μg/l. None of the organics analyzed were detected in water.

Numerous investigations have been conducted at the McIntosh facility. These investigations were used as a basis for scoping the site characterization activities and developing the amended RI/FS work plans, which were submitted to EPA on May 25, 1991. The RI/FS Work Plan and Sampling and Analysis Plan detail the sampling and analytical procedures that are used to characterize the site. The site characterization activities include sampling and chemical analysis of onsite groundwater and offsite groundwater (domestic wells) in OU-1, and sampling and chemical analysis of sediment, surface water and fish in OU-2.

For the purposes of defining the chemicals of potential concern, selected sediment samples, onsite groundwater samples and surface water samples were analyzed for organic and inorganic constituents using the procedures outlined in the EPA Contract Laboratory Program (CLP) Statements of Work (EPA, 1990b and 1990c). These sampling activities are summarized below. The completed human health risk assessment will also include the analytical data from fish tissue and offsite groundwater (domestic) wells, which are not available to date. However, currently available sediment, surface water and groundwater data should provide the necessary data to define the chemicals of potential concern for all affected media at the site.

3.1 OU-1, ONSITE GROUNDWATER SAMPLING

Thirty-three selected onsite wells (monitor, production, and corrective action) were sampled for the RI/FS. The monitor well locations are presented in Figure 3. The selected wells were sampled and analyzed for the following constituents as specified in the EPA Contract Laboratory Program (CLP): Target Compound List (TCL) Volatile Organics; TCL Semivolatile Organics; TCL Pesticides/PCBs; Target Analyte List (TAL)

mercury (total and dissolved); a subset of the Target Analyte List that includes the following thirteen metals on the Priority Pollutant List and cyanide:

Arsenic	Silver
Cadmium	Antimony
Chromium	Beryllium
Lead	Copper
Mercury	Zinc
Nickel	Thallium
Selenium	Cyanide

The groundwater samples were also analyzed in the laboratory for chloride. Field analyses included pH, specific conductance and temperature.

3.2 OU-2, SEDIMENT SAMPLING

Figure 4 shows the locations of the sediment samples that were collected during the first phase of the site characterization activities. Core sediment samples were collected at the three sample locations shown in Figure 4 (C1, C2, and C3). Each core was completed to an approximate depth of five feet and samples were collected at approximate 1-foot intervals. In addition to the core sampling, grab surface samples were collected on a grid established at approximate 200-foot spacing across the basin. The wastewater ditch, discharge ditch, the former flow path from the wastewater ditch to the basin, and the current flow path from the wastewater ditch to the discharge ditch were sampled every 200 feet along the centerline. These were also grab-type samples. All samples were split and analyzed for TAL mercury by CLP procedures. In addition to the mercury analyses, selected split core samples and grid samples were analyzed for soluble mercury, pH, Total Organic Carbon (TOC), sulfide, sulfate, and CLP parameters including the selected list of TAL constituents, TCL Volatile Organics, TCL Semi-Volatile Organics, and Pesticides/PCBs. The remaining samples were analyzed for selected organic indicator contaminants using a laboratory screening technique.

3.3 OU-2, SURFACE WATER SAMPLING

Surface water samples were collected from discrete depths at randomly selected grid locations in the basin. Surface water samples were also obtained from each of the drainages to the basin that contain water. The surface water sample locations are shown in Figure 4. The water samples were analyzed by CLP procedures for TAL mercury (total and dissolved), the selected list of other TAL constituents, TCL Volatile Organics, TCL Semi-Volatile Organics, TCL Pesticides/PCBs. Non-CLP analyses included Dissolved Oxygen (DO), pH, TOC, Total Suspended Solids (TSS), and Total Dissolved Solids (TDS).

Volume I of the EPA Risk Assessment Guidance for Superfund (RAGS) (EPA, 1989) provides general criteria to be used in developing the initial list of chemicals of potential concern based on chemical data obtained from sampling of environmental media. These criteria include:

1. Analytes positively detected in at least one sample in a given medium, including (a) chemicals with no qualifiers attached (excluding samples with unusually high detection limits), and (b) chemicals with qualifiers attached that indicate known identities but unknown concentrations (e.g., J-qualified data).
2. Analytes detected at levels significantly elevated above levels of the same chemicals detected in associated blank samples.
3. Analytes detected at levels significantly elevated above naturally occurring levels of the same chemicals.
4. Analytes only tentatively identified but either may be associated with the site based on historical information or have been confirmed by Special Analytical Services.
5. Transformation products of chemicals demonstrated to be present.

CLP ANALYTICAL RESULTS

The results of the CLP analyses are presented in Appendix A, Appendix B, and Appendix C for onsite groundwater, surface water and sediments, respectively. Data validation for these sample analyses has not been completed. The results are considered preliminary, and therefore do not include the data validation qualifiers. However, specific detections and qualifiers have been evaluated by WCC's QA/QC Manager with respect to their significance for preparation of the list chemicals of potential concern.

Table 1 summarizes the TCL organic parameters that are interpreted to be detected based on the CLP data. The data are listed by media along with the maximum

concentration of the analyte that was detected. For the sediment and surface water samples, common laboratory contaminants that were reported (carbon disulfide, acetone, methylene chloride and 2-butanone) are qualified as nondetected based on either comparison of reported concentrations with concentrations in blank samples, or based on professional judgment. Carbon disulfide is also found as naturally occurring at these low concentrations. The phthalate esters including bis(2-ethylhexyl)phthalate are common laboratory and field sampling contaminants, and are also qualified as nondetected or rejected in the sediment samples based on functional guidelines for evaluating organic and inorganic data (EPA 1988a, 1988b and 1990a) and professional judgment. Acetone, methylene chloride, and bis(2-ethylhexyl)phthalate are qualified as non-detected in the groundwater based on EPA functional guidelines and professional judgment. The parameter 2-butanone was considered for the list of chemicals of potential concern in the groundwater based on these preliminary data.

Several of the Pesticide/PCB constituents reported by the laboratory are not considered positives. As a conservative approach, a reported value was considered positive if it was confirmed by GC/MS or the reported concentrations varied less than a factor of two between the two GC/ECD columns. The CLP Statement of Work (EPA, 1990c) requires the laboratory to flag the data as suspect if the observed values from the two GC/ECD columns vary by more than 25 percent. One exception is surface water. Beta-BHC concentrations was reported, but at a concentration of less than two times the CRQL of 0.050 μg/l. It should be noted that none of the pesticides that were qualified as non-detected were known to have been handled at the McIntosh facility.

The reported Tentatively Identified Compounds (TIC) that were considered are also listed in Table 1. The compounds were listed as possible chemicals of concern based on the frequency, association with the reported target compounds and knowledge of chemicals that were handled at the facility. The identifications are only tentative and the reported concentrations are estimated values. This uncertainty in the data will be considered during the risk assessment.

A summary of the maximum concentrations of inorganic analytes detected in groundwater, sediment and surface water is presented in Table 2. The values reported for surface water are the maximum of both the total and dissolved analyses. The values

reported for groundwater are the maximum of the dissolved analyses only. The procedure for developing the list of chemicals of potential concern includes normalizing the data to assess the relative hazard associated with each compound. It is the relative concentrations across the site that are pertinent in this evaluation. The high turbidity of some of the groundwater samples greatly affects the total analyses results. Therefore, the dissolved analyses are used for the evaluation to prevent skewing the data toward compounds reported in the turbid samples, thus masking lower concentrations detected in less turbid samples. This ensures that the list of chemicals of potential concern includes all compounds that contribute more than 1 percent of the relative hazard. Total analyses will be used however to evaluate risk associated with consumption of off-site drinking water.

The superfund risk assessment guidance (EPA, 1989) indicates that a detected chemical can be considered as a candidate for elimination from the quantitative risk assessment if:

1. It is detected infrequently in one or perhaps two environmental media.
2. It is not detected in any other sampled media or at high concentrations.
3. There is no reason to believe that the chemical may be present.

Based on these criteria the following chemicals are eliminated from the list of potential chemicals of potential concern in groundwater:

- 1,2,-dichloroethane - reported in two samples below the CRQL
- 1,2-dichloroethene (total) - reported in one sample below the CRQL
- 1,1-dichloroethene - reported in one sample below the CRQL
- 1,1-dichloroethane - reported in one sample below the CRQL
- 1,1,1-trichloroethane - reported in one sample below the CRQL
- Carbon Tetrachloride - reported in one sample below the CRQL
- Phenol - reported in one sample below the CRQL
- Alpha-chlordane - reported in one sample at a low concentration of 0.055 μg/l.

None of the above analytes that are eliminated from the chemicals of potential concern list are believed to be significant contaminants associated with the Olin McIntosh facility.

5.0 IDENTIFICATION OF CHEMICALS OF POTENTIAL CONCERN

An initial step in developing a human health risk assessment is to identify the site related chemicals of potential concern. Chemicals of potential concern are hazardous compounds that may be present at or released from a site that may pose health risks to humans coming in contact with them.

A list of chemicals of potential concern was generated for each of the three media (surface water, groundwater, and sediment) based on the analytical data presented in Section 3.0. EPA has developed toxicity values for use in assessing potential noncarcinogenic hazards and carcinogenic health risks from exposures to the chemicals. Only parameters with those EPA toxicity values were considered. In other words, chemicals that possessed reference dose (RfD) values and/or carcinogenic slope factors were carried through the potential chemicals of concern selection process.

Chemicals not possessing verified EPA carcinogenic and/or noncarcinogenic toxicity values were not included in the screening process. These included 1,3-dichlorobenzene, phenanthrene, endrin aldehyde, delta-BHC, trichlorobenzene isomers, tetrachlorobenzene isomers and DDMU (1-chloro-2,2-bis-(4 chlorophenyl)ethylene). Alpha-BHC, Beta-BHC, 4,4'-DDD and 4,4'-DDE were excluded from the noncarcinogen quantitative screening due to the lack of published RfD and RfC values. These chemicals will be addressed in the risk assessment.

5.1 CONCENTRATION-TOXICITY SCREEN

RAGS states that carrying a large number of chemicals through a quantitative risk assessment may be complex, consume significant resources, and result in an unwieldy report that can distract from the dominant risks present at the site. EPA guidelines recommend reducing the number of chemicals by eliminating those that contribute an insignificant fraction of the total risk. Following EPA guidelines, this is accomplished by applying a concentration-toxicity screen to arrive at a list of chemicals, each of which

contributes 1.0 percent or more of the total hazard or risk. Exposures to these chemicals are then addressed in the exposure assessment.

A concentration-toxicity screen was applied to the carcinogenic and noncarcinogenic TCL and TAL constituents, and TICs identified with a verified CAS number that were considered potential site contaminants. The concentration-toxicity screen was conducted separately for each medium (groundwater, surface water and sediment).

To apply a concentration-toxicity screen for noncarcinogenic compounds, the maximum concentration for each constituent in each medium was divided by its toxicity value (chronic reference doses or concentration, RfD or RfC) to yield a ratio known arbitrarily as a "hazard factor." For carcinogens, the maximum contaminant concentration was multiplied by the slope factor to yield the hazard factor. The ratio of the hazard factor to the sum total of the hazard factors yields a "hazard descriptor" for each chemical. Any chemical whose hazard descriptor is 0.01 (1.00E-02) or greater (that is, represents 1 percent or more of all total hazard descriptors) is considered a chemical of potential concern to be addressed in the health risk assessment. Chemicals that represent less than 1 percent of the total hazard descriptors are eliminated from further consideration.

Inorganic and organic materials were combined in each carcinogen and noncarcinogen concentration-toxicity screen. For sediment only, the lower of the RfC or RfD values for noncarcinogens were used in the screens to accommodate future potential exposure scenarios in order to be conservative. For instance, the inhalation exposure route may be plausible for contaminants in sediment, especially if soil remediation workers are the receptors involved. Similarly, the higher of inhalation or oral slope factors were used in sediment concentration-toxicity screens for carcinogens in order to be conservative. For groundwater and surface water, only oral RfDs and slope factors were used in the concentration-toxicity screens since inhalation exposure for contaminants in water at this site is not considered a viable exposure route.

The concentration toxicity screen calculations for noncarcinogenic and carcinogenic chemicals are shown in Tables 3 through 8. Maximum concentrations were obtained from the analytical data lists for each medium as discussed in Section 4.0 (see Table 1

and Table 2). Reference doses (or concentrations) are obtained from the EPA Integrated Risk Information System (IRIS) (EPA, 1990) and in EPA's Health Effects Assessment Summary Tables (HEAST) (EPA, 1991).

For groundwater, 12 of 26 noncarcinogens contributed greater than 1 percent to the sum total of hazard descriptors and are considered potential chemicals of concern (Table 3). In addition, lead and cyanide were added to the noncarcinogen groundwater list. No RfD is available for lead; the potential impact of lead on humans will be evaluated in the risk assessment under the uptake biokinetic model (EPA Lead Model 0.5, 1991). Cyanide is included because cyanide cyanide analytical data have not yet been received. After receipt of the cyanide data a final determination will be made regarding whether cyanide is a chemical of potential concern.

The carcinogen groundwater concentration-toxicity screen yielded seven chemicals of potential concern (out of twelve) (Table 4). To this list, lead and selenium were added even though slope factors are not available at this time since both metals are suspected or probable carcinogens. Again, the potential impact of lead on humans will be evaluated separately under the uptake biokinetic model.

In surface water, 5 of 11 materials contributed greater than 1 percent to the sum total of hazard descriptors and are considered chemicals of potential concern (Table 5). In addition, lead is added since it was reported in this medium and its potential human health impact must be evaluated. The carcinogen screen yielded three (of four) significant chemicals (Table 6). Additionally, lead and selenium were added to the chemical of concern list due to their presence in surface water and for the same reasons stated above. Although nickel, cadmium and chromium were reported in surface water, they were not included as contaminants of concern since oral slope factors were not determined.

For sediment, only three chemicals out of twenty-six screened in the noncarcinogen concentration-toxicity screen contributed 1 percent or greater to the sum total of hazard descriptors and are considered potential chemicals of concern (Table 7). In addition, lead, which was reported in sediment, was added to the list.

The sediment carcinogen screen (Table 8) yielded only three potential chemicals of concern (out of eighteen screened). In addition, lead and selenium, which were both reported in sediment, are included due to their potential carcinogenic properties.

5.2 CHEMICALS OF POTENTIAL CONCERN

The list of chemicals of potential concern for each medium are presented in Table 6. The list includes noncarcinogenic and carcinogenic compounds detected at the Olin site that represent 1 percent or more of the total hazard descriptor (indicated by the concentration toxicity screening) and chemicals that were reported that possess subchronic and/or chronic toxicity and/or carcinogenic potential.

The list of chemicals of concern will be used in the further development of conceptual site models, identification of exposure pathways, identification of human receptor populations, identification of ecological receptors, exposure point location identification, development of contaminant intake for receptors, toxicological assessment and finally, risk characterization and potential remediation of the site. Since this list has been developed early in the RI/FS process, it is subject to change as additional data are obtained from the site. Chemicals may be added or removed based on the final validated data. Additional RI activities may result in modifications to the list.

6.0 REFERENCES

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TABLES

TABLE 2 (Continued)

SUMMARY OF INORGANIC ANALYTES

	Chemical	Maximum Reported Concentration (mg/kg)
SEDIMENT		
	Antimony	24.6
	Arsenic	16.1
	Beryllium	3.7
	Cadmium	0.78
	Chromium	69.4
	Copper	57.5
	Cyanide	1.5[3]
	Lead	44.2
	Mercury	290.0
	Nickel	28.9
	Selenium	2.4
	Silver	1.0
	Thallium	ND[4]
	Zinc	227.0

NOTES:

3 Result is a data validation value and is being investigated by the laboratory.
4 Not Detected. Concentration limit varies with sample weight.

TABLE 2

SUMMARY OF INORGANIC ANALYTES

Chemical	Maximum Reported Concentration (mg/l)[1]
GROUNDWATER	
Antimony	0.512
Arsenic	0.0032
Beryllium	0.115
Cadmium	0.036
Chromium	0.313
Copper	1.010
Cyanide	NA[2]
Lead	0.441
Mercury	0.130
Nickel	1.24
Selenium	0.0487
Silver	0.185
Thallium	<0.008
Zinc	1.42
SURFACE WATER	
Antimony	<0.032
Arsenic	0.0122
Beryllium	0.0033
Cadmium	0.0022
Chromium	0.882
Copper	0.0336
Cyanide	<0.010
Lead	0.0038
Mercury	0.0028
Nickel	0.616
Selenium	0.0049
Silver	0.0063
Thallium	<0.008
Zinc	0.444

NOTES:

1 Includes results of dissolved analyses only for groundwater.

2 Results had not been received for cyanide as of 12/10/91. Cyanide will be included on the list of chemicals of potential concern for groundwater until the results are received and reviewed. At that time a determination will be made whether cyanide should remain as a chemical of potential concern.

TABLE 1 (Continued)

SUMMARY OF ORGANIC COMPOUNDS

TCL Volatile Organic Compounds	Maximum Reported Concentration (µg/kg)	TCL Semivolatile Organic Compounds	Maximum Reported Concentration (µg/kg)	TCL Pesticide/ PCB Compounds	Maximum Reported Concentration (µg/kg)	Tentatively Identified Compounds	Estimated Concentration (µg/kg)
SEDIMENT							
Chlorobenzene	5800	Hexachlorobenzene	810,000D	4,4'-DDT	4000D	Pentachloronitrobenzene	41,000JN
Benzene	180D	Fluoranthene	4900J	4,4'-DDD	1800CD	Pentachlorobenzene	33,000JN
		Pyrene	3500J	4,4'-DDE	1400CD	1-Chlor-2,2-bis-	1400JN
		1,2,4-Trichlorobenzene	1100	Delta-BHC	170PD	(4-chlorophenyl)ethylene	
		1,3-Dichlorobenzene	950	Gamma Chlordane	78P		
		1,4-Dichlorobenzene	630	Gamma-BHC	29		
		1,2-Dichlorobenzene	240J	Aldrin	5.0P		
		Phenanthrene	210J	Alpha-BHC	24		
				Beta-BHC	18P		
				Heptachlor Epoxide	19		
				Endrin Aldehyde	7.6P		

C Pesticide/PCB compound confirmed by GC/MS.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit or estimated concentration of a Tentatively Identified Compound.
P Greater than 25 percent difference for observed concentrations between the two GC/ECD columns.
N Indicates presumptive evidence of a compound. Used for TICs where identification is based on mass spectral library search.

Woodward-Clyde Consultants

TABLE 1

SUMMARY OF ORGANIC COMPOUNDS

TCL Volatile Organic Compounds	Maximum Reported Concentration (µg/l)	TCL Semivolatile Organic Compounds	Maximum Reported Concentration (µg/l)	TCL Pesticide/ PCB Compounds	Maximum Reported Concentration (µg/l)	Tentatively Identified Compounds	Estimated Concentration (µg/l)
GROUNDWATER							
Chlorobenzene	2500D	1,2-Dichlorobenzene	4000D	Alpha-BHC	5.6CD	Tetrachlorobenzene isomers	65JN
Chloroform	1200D	1,4-Dichlorobenzene	4100D	Beta-BHC	2.2D		
Benzene	350D	1,2,4-Trichlorobenzene	220	Gamma-BHC (Lindane)	1.0PD	Pentachlorobenzene	49JN
2-Butanone	200D	1,3-Dichlorobenzene	270	Delta-BHC	0.57PD	Trichlorobenzene	37JN
Bromodichloromethane	65	2-Chlorophenol	80	Gamma-Chlordane	0.20P	Pentachloronitrobenzene	11JN
Dibromochloromethane	40	2,4-Dichlorophenol	59				
Bromoform	31	Phenol	3J				
Carbon Disulfide	21						
Carbon Tetrachloride	8J						
1,1,1-Trichloroethane	5J						
1,1-Dichloroethene	5J						
1,2-Dichloroethane	5J						
1,2-Dichloroethene (total)	3J						
1,1-Dichloroethane	3J						
SURFACE WATER							
Chloroform	3J			Alpha-BHC	0.22		-
Carbon Disulfide	4J						-

TABLE 3
CONCENTRATION – TOXICITY SCREEN : NONCARCINOGENS
GROUNDWATER

Chemicals	Maximum Concentration (mg/l)	Chronic Oral RFD [a] (mg/kg/day)	Hazard Factor	Hazard Descriptor
*1,2,4-trichlorobenzene	2.20E-01	1.31E-03 [b]	1.68E+02	6.39E-02
*1,2-dichlorobenzene	4.00E+00	9.00E-02	4.44E+01	1.69E-02
1,4-dichlorobenzene	4.10E+00	7.00E-01	5.86E+00	2.23E-03
2,4-dichlorophenol	5.90E-02	3.00E-03	1.97E+01	7.48E-03
2-butanone	2.00E-01	5.00E-02 [b]	4.00E+00	1.52E-03
2-chlorophenol	8.00E-02	5.00E-03	1.60E+01	6.08E-03
*antimony	5.12E-01	4.00E-04	1.28E+03	4.87E-01
arsenic	3.20E-03	1.00E-03	3.20E+00	1.22E-03
beryllium	1.15E-01	5.00E-03	2.30E+01	8.75E-03
bromodichloromethane	6.50E-02	2.00E-02	3.25E+00	1.24E-03
bromoform	3.10E-02	2.00E-02	1.55E+00	5.89E-04
*cadmium	3.60E-02	5.00E-04	7.20E+01	2.74E-02
*chlorobenzene	2.50E+00	2.00E-02	1.25E+02	4.75E-02
*chloroform	1.20E+00	1.00E-02	1.20E+02	4.56E-02
*chromium	3.13E-01	5.00E-03	6.26E+01	2.38E-02
*copper	1.01E+00	3.70E-02	2.73E+01	1.04E-02
dibromochloromethane	4.00E-02	2.00E-02	2.00E+00	7.61E-04
gamma chlordane	2.00E-04	6.00E-05	3.33E+00	1.27E-03
gamma-BHC	1.00E-03	3.00E-04	3.33E+00	1.27E-03
*mercury	1.30E-01	3.00E-04	4.33E+02	1.65E-01
*nickel	1.24E+00	2.00E-02	6.20E+01	2.36E-02
*pentachlorobenzene	4.90E-02	8.00E-04	6.13E+01	2.33E-02
pentachloronitrobenzene	1.10E-02	3.00E-03	3.67E+00	1.39E-03
selenium	4.87E-02	3.00E-03	1.62E+01	6.17E-03
*silver	1.85E-01	3.00E-03	6.17E+01	2.34E-02
zinc	1.42E+00	2.00E-01	7.10E+00	2.70E-03
		SUM	2.63E+03	1.00E+00

a – Only oral reference dose values were used since inhalation route is not a viable exposure pathway for groundwater at this site.

b – Under review by the U.S. E.P.A.; the toxicity value was obtained from HEAST (1991).

* – chemicals of potential concern

TABLE 4
CONCENTRATION – TOXICITY SCREEN : CARCINOGENS
GROUNDWATER

Chemicals	Maximum Concentration (mg/l)	Oral Slope Factor [a] (mg/kg/day)−1	Hazard Factor	Hazard Descriptor
*1,4−dichlorobenzene	4.10E+00	2.40E−02 [b]	9.84E−02	1.45E−01
*alpha−BHC	5.60E−03	6.30E+00	3.53E−02	5.21E−02
arsenic	3.20E−03	1.75E+00 [c]	5.60E−03	8.26E−03
*benzene	3.50E−01	2.90E−02	1.01E−02	1.50E−02
*beryllium	1.15E−01	4.30E+00	4.94E−01	7.30E−01
*bromodichloromethane	6.50E−02	1.30E−01	8.45E−03	1.25E−02
bromoform	3.10E−02	7.90E−03	2.45E−04	3.61E−04
*chloroform	1.20E+00	6.10E−03	7.32E−03	1.08E−02
dibromochloromethane	4.00E−02	8.40E−02	3.36E−03	4.96E−03
gamma chlordane	2.00E−04	1.30E+00	2.60E−04	3.84E−04
gamma−BHC	1.00E−03	1.30E+00 [b]	1.30E−03	1.92E−03
*pentachloronitrobenzene	4.90E−02	2.60E−01 [b]	1.27E−02	1.88E−02
		SUM	6.78E−01	1.00E+00

a – Only oral slope factors were used since inhalation exposure is not a viable exposure route for groundwater at this site.
b – Under review by the U.S. E.P.A.; the toxicity value was obtained from HEAST (1991).
c – Calculated value based on unit risk of 5.00E−05 ug/l−1 (HEAST).
* – chemicals of potential concern

TABLE 5
CONCENTRATION – TOXICITY SCREEN : NONCARCINOGENS
SURFACE WATER

Chemicals	Maximum Concentration (mg/l)	Chronic Oral RFD [a] (mg/kg/day)	Hazard Factor	Hazard Descriptor
*arsenic	1.22E−02	1.00E−03	1.22E+01	5.09E−02
beryllium	3.30E−03	5.00E−03	6.60E−01	2.75E−03
*cadmium	2.20E−03	5.00E−04	4.40E+00	1.84E−02
chloroform	3.00E−03	1.00E−02	3.00E−01	1.25E−03
*chromium	8.82E−01	5.00E−03	1.76E+02	7.36E−01
copper	3.36E−02	3.70E−02	9.08E−01	3.79E−03
*mercury	2.80E−03	3.00E−04	9.33E+00	3.90E−02
*nickel	6.16E−01	2.00E−02	3.08E+01	1.29E−01
selenium	4.90E−03	3.00E−03	1.63E+00	6.82E−03
silver	6.30E−03	3.00E−03	2.10E+00	8.77E−03
zinc	1.66E−01	2.00E−01	8.30E−01	3.46E−03
		SUM	2.40E+02	1.00E+00

a – only oral RFD used since inhalation route is not a viable exposure route for this medium.
* – chemicals of potential concern

TABLE 6
CONCENTRATION – TOXICITY SCREEN : CARCINOGENS
SURFACE WATER

Chemicals	Maximum Concentration (mg/l)	Oral Slope Factor [a] (mg/kg/day)−1	Hazard Factor	Hazard Descriptor
*alpha−BHC	2.20E−04	6.30E+00	1.39E−03	3.75E−02
*arsenic	1.22E−02	1.75E+00 [b]	2.14E−02	5.78E−01
*beryllium	3.30E−03	4.30E+00	1.42E−02	3.84E−01
chloroform	3.00E−03	6.10E−03	1.83E−05	4.95E−04
		SUM	3.69E−02	1.00E+00

a − Only oral slope factors used since the inhalation route is not considered a valid route of exposure for surface water at this site.
b − Calculated value based on unit risk of 5.00E−05 ug/l−1 (HEAST).
* − chemicals of potential concern

TABLE 7
CONCENTRATION – TOXICITY SCREEN : NONCARCINOGENS
SEDIMENT

Chemicals	Maximum Concentration (mg/kg)	Chronic RFD or RFC [a] (mg/kg/day)	Hazard Factor	Hazard Descriptor
1,2 dichlorobenzene	2.40E−01	4.00E−02	6.00E+00	3.59E−07
1,4 dichlorobenzene	6.30E−01	7.00E−01	9.00E−01	5.39E−08
4,4'−DDT	4.00E+00	5.00E−04	8.00E+03	4.79E−04
Aldrin	5.00E−03	3.00E−05	1.67E+02	9.97E−06
Antimony	2.46E+01	4.00E−04	6.15E+04	3.68E−03
Arsenic	1.61E+01	1.00E−03	1.61E+04	9.63E−04
Beryllium	3.70E+00	5.00E−03	7.40E+02	4.43E−05
Cadmium	7.80E−01	5.00E−04	1.56E+03	9.33E−05
Chlorobenzene	5.80E+00	5.00E−03 [d]	1.16E+03	6.94E−05
*Chromium	6.94E+01	5.70E−06 [c]	1.22E+07	7.29E−01
Copper	5.75E+01	3.70E−02 [b]	1.55E+03	9.30E−05
Cyanide	1.50E+00	2.00E−02	7.50E+01	4.49E−06
Fluoranthene	4.90E+00	4.00E−02	1.23E+02	7.33E−06
gamma chlordane	7.80E−02	6.00E−05	1.30E+03	7.78E−05
gamma − BHC	2.90E−02	3.00E−04	9.67E+01	5.78E−06
heptachlor epoxide	1.90E−02	1.30E−05	1.46E+03	8.75E−05
*Hexachlorobenzene	8.10E+02	8.00E−04	1.01E+06	6.06E−02
*Mercury	2.90E+02	8.60E−05 [c]	3.37E+06	2.02E−01
Nickel	2.89E+01	2.00E−02	1.45E+03	8.65E−05
Pentachlorobenzene	3.30E+01	8.00E−04	4.13E+04	2.47E−03
Pentachloronitrobenzene	4.10E+01	3.00E−03	1.37E+04	8.18E−04
Pyrene	3.50E+00	3.00E−02	1.17E+02	6.98E−06
Selenium	2.40E+00	3.00E−03	8.00E+02	4.79E−05
Silver	1.00E+00	3.00E−03	3.33E+02	1.99E−05
Zinc	2.27E+02	2.00E−01	1.14E+03	6.79E−05
		SUM	1.67E+07	1.00E+00

a − most conservative (smaller) of the chronic RFD or RFC used to produce the largest hazard factor
b − based on current drinking water standard of 1.3 mg/l
c − calculated value by HEAST methodology from the RFC, RFD, or from unit risk for slope factor
d − under review by RFD/RFC work group
* − chemicals of potential concern

TABLE 8
CONCENTRATION – TOXICITY SCREEN : CARCINOGENS
SEDIMENT

Chemicals	Maximum Concentration (mg/kg)	Slope Factor [a] (mg/kg/day)−1	Hazard Factor	Hazard Descriptor
1,4-dichlorobenzene	6.30E−01	2.40E−02 [b]	1.51E−02	3.01E−06
4,4'-DDD	1.80E+00	2.40E−01	4.32E−01	8.61E−05
4,4'-DDE	1.40E+00	3.40E−01	4.76E−01	9.48E−05
4,4'-DDT	4.00E+00	3.40E−01	1.36E+00	2.71E−04
Aldrin	5.00E−03	1.70E+01	8.50E−02	1.69E−05
alpha-BHC	2.40E−02	6.30E+00	1.51E−01	3.01E−05
*arsenic	1.61E+01	5.00E+01	8.05E+02	1.60E−01
benzene	1.80E−01	2.90E−02	5.22E−03	1.04E−06
beryllium	3.70E+00	8.40E+00	3.11E+01	6.19E−03
beta-BHC	1.80E−02	1.80E+00	3.24E−02	6.45E−06
cadmium	7.80E−01	6.10E+00	4.76E+00	9.48E−04
*chromium	6.94E+01	4.10E+01	2.85E+03	5.67E−01
gamma-BHC	2.90E−02	1.30E+00 [b]	3.77E−02	7.51E−06
gamma-chlordane	7.80E−02	1.30E+00	1.01E−01	2.02E−05
heptachlor epoxide	1.90E−02	9.10E+00	1.73E−01	3.44E−05
*hexachlorobenzene	8.10E+02	1.60E+00	1.30E+03	2.58E−01
nickel	2.89E+01	8.40E−01	2.43E+01	4.84E−03
pentachloronitrobenzene	4.10E+01	2.60E−01 [b]	1.07E+01	2.12E−03
		SUM	5.02E+03	1.00E+00

a – When inhalation and oral slope factors were both listed, the more conservative number yielding the largest hazard factor was used.

b – Under review by the U.S. E.P.A.; the toxicity value was obtained from HEAST (1991).

* – Chemicals of potential concern

Woodward-Clyde Consultants

TABLE 9

CHEMICALS OF POTENTIAL CONCERN

GROUNDWATER

Carcinogens	Noncarcinogens
1,4-Dichlorobenzene	1,2,4-Trichlorobenzene
Alpha-BHC*	1,2-Dichlorobenzene
Benzene	Antimony*
Beryllium*	Cadmium*
Bromodichloromethane*	Chlorobenzene
Chloroform	Chloroform
Lead*	Chromium
Pentachloronitrobenzene[1]	Copper*
Selenium*	Cyanide*
	Lead*
	Mercury
	Nickel
	Pentachlorobenzene
	Silver*

SURFACE WATER

Carcinogens	Noncarcinogens
Alpha-BHC*	Arsenic*
Arsenic*	Cadmium*
Beryllium*	Chromium
Lead*	Lead*
Selenium*	Mercury
	Nickel

SEDIMENT

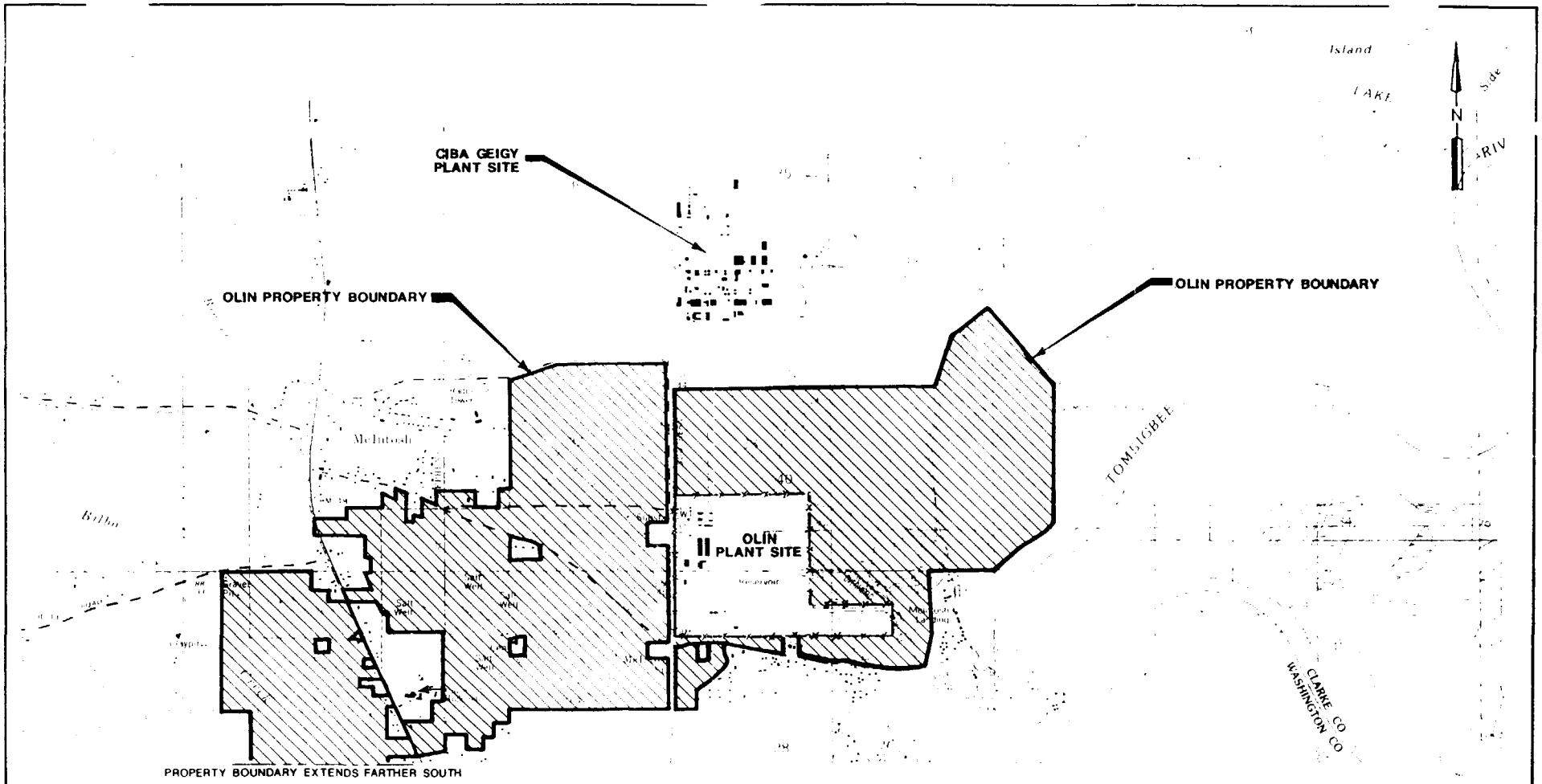
Carcinogens	Noncarcinogens
Arsenic*	Chromium
Chromium	Hexachlorobenzene
Hexachlorobenzene	Lead*
Lead*	Mercury
Selenium*	

NOTES:

1 Carcinogenic potential under review by the U. S. EPA.

* No evidence found which indicates materials containing these chemicals (other then trace amounts) were used or produced at Olin.

FIGURES



RE. U.S.G.S. 7.5 MINUTE SERIES QUADRANGLE MAP, McINTOSH, ALABAMA, 1984 AND GINHOUSE ISLAND, ALABAMA, 1984.

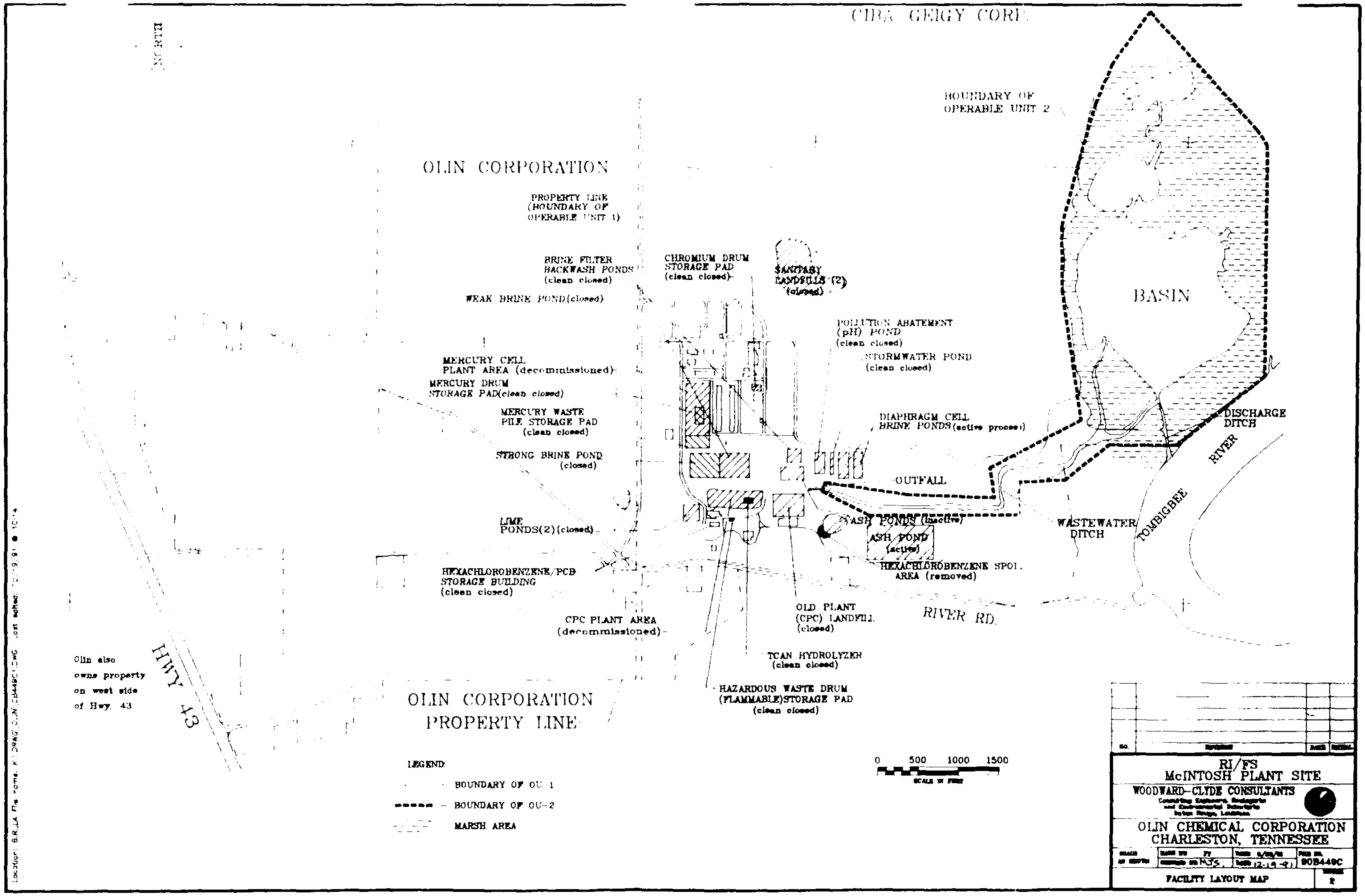
RI/FS
McINTOSH PLANT SITE

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

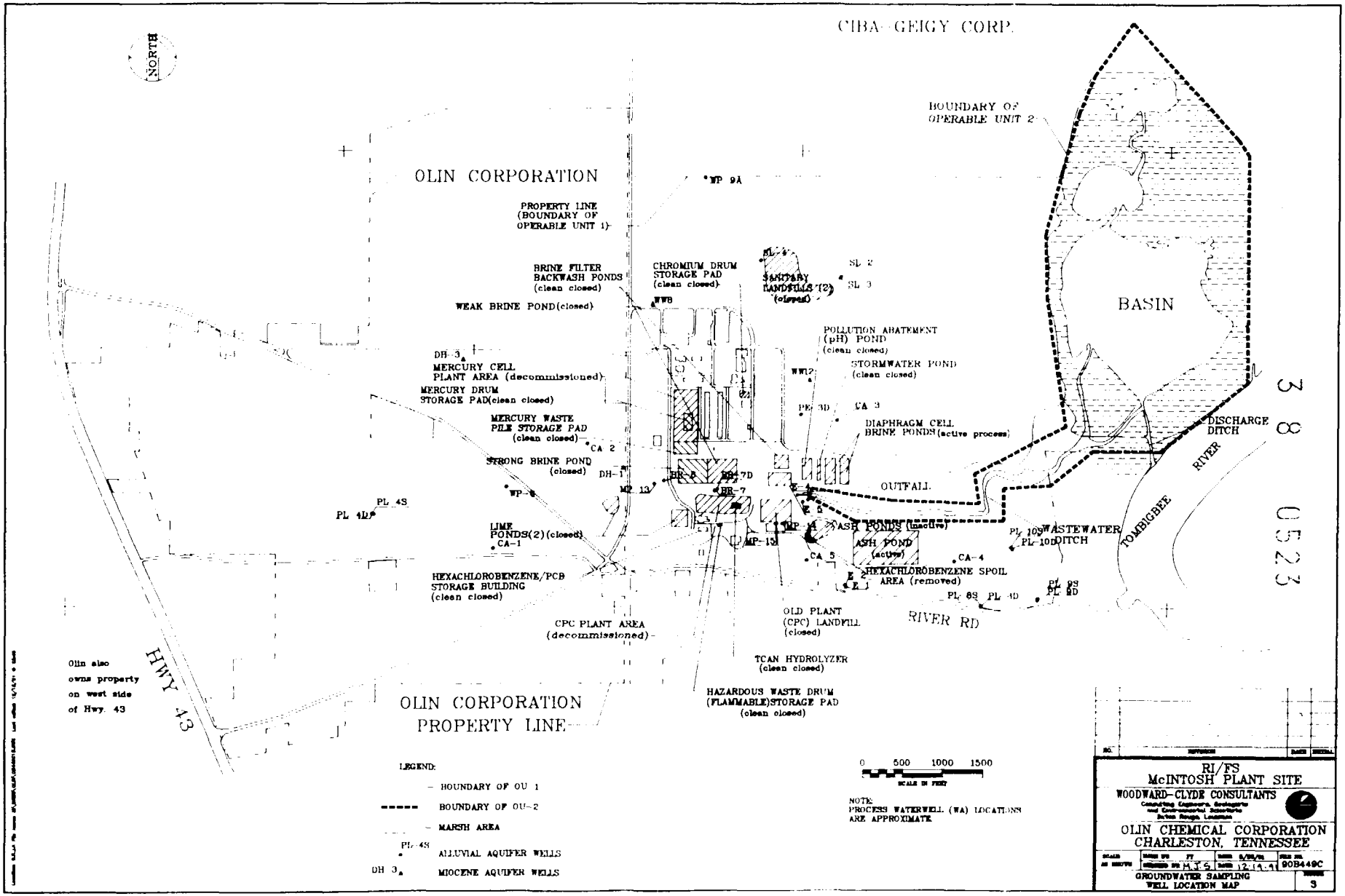
OLIN CHEMICAL CORPORATION
CHARLESTON, TENNESSEE

SCALE:	MADE BY: SJL	DATE: 12/90	FILE NO.
AS SHOWN	CHECKED BY: WAS	DATE: 12/90	908449C

SITE LOCATION MAP — FIGURE 1

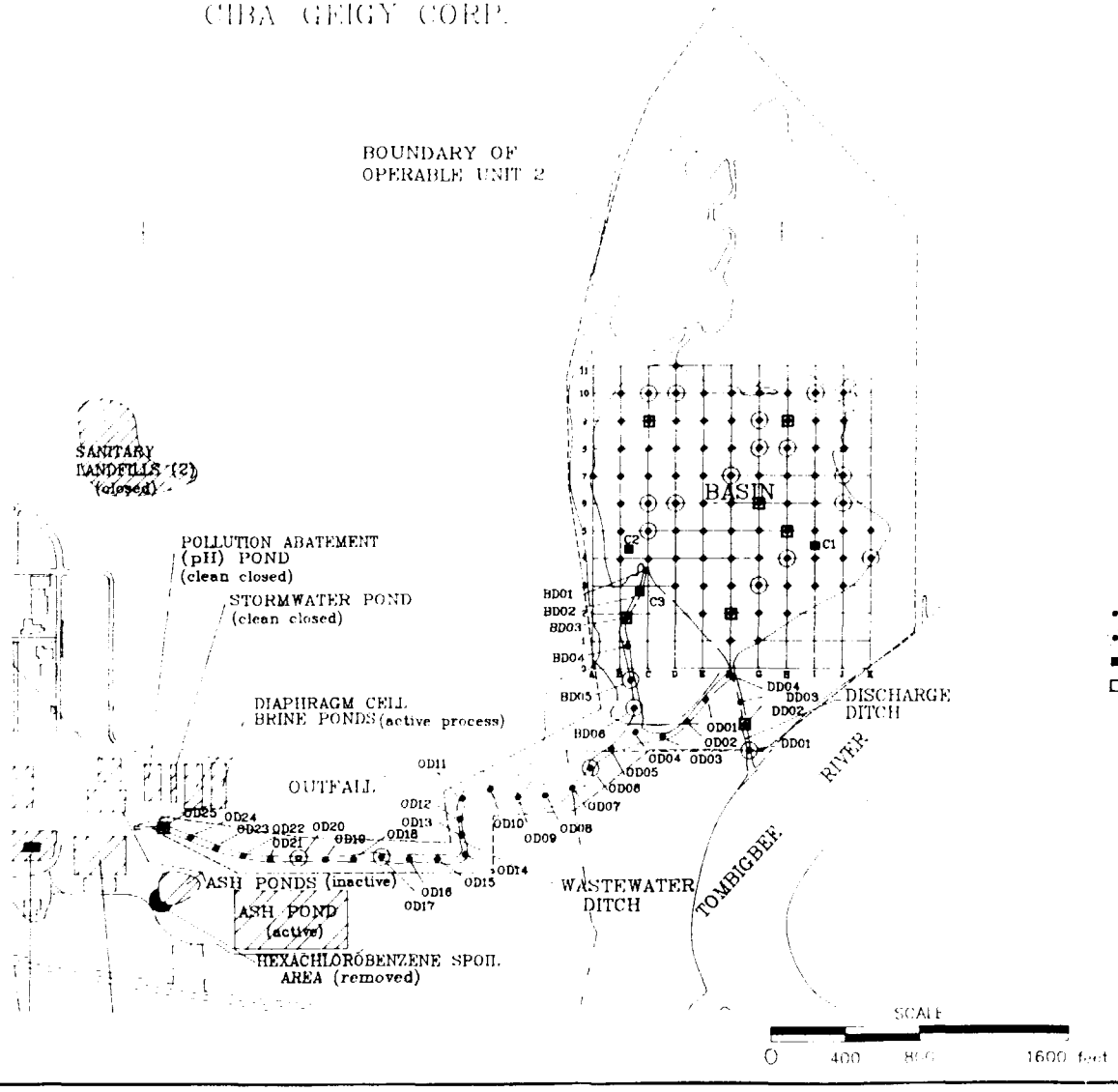

NORTH
CIBA GEIGY CORP.
BOUNDARY OF OPERABLE UNIT 2
OLIN CORPORATION
PROPERTY LINE (BOUNDARY OF OPERABLE UNIT 1)
BRINE FILTER BACKWASH PONDS (clean closed)
CHROMIUM DRUM STORAGE PAD (clean closed)
SANITARY LANDFILLS (2) (closed)
WEAK BRINE POND (closed)
BASIN
POLLUTION ABATEMENT (pH) POND (clean closed)
STORMWATER POND (clean closed)
MERCURY CELL PLANT AREA (decommissioned)
MERCURY DRUM STORAGE PAD (clean closed)
MERCURY WASTE PILE STORAGE PAD (clean closed)
DIAPHRAGM CELL BRINE PONDS (active process)
DISCHARGE DITCH
STRONG BRINE POND (closed)
RIVER
OUTFALL
TOMBIGBEE
LIME PONDS(2) (closed)
WASH PONDS (inactive)
ASH POND (active)
WASTEWATER DITCH
HEXACHLOROBENZENE/PCB STORAGE BUILDING (clean closed)
HEXACHLOROBENZENE SPOIL AREA (removed)
RIVER RD.
CPC PLANT AREA (decommissioned)
OLD PLANT (CPC) LANDFILL (closed)
TCAN HYDROLYZER (clean closed)
Olin also owns property on west side of Hwy. 43
HWY 43
HAZARDOUS WASTE DRUM (FLAMMABLE) STORAGE PAD (clean closed)
OLIN CORPORATION PROPERTY LINE
LEGEND
BOUNDARY OF OU-1
BOUNDARY OF OU-2
MARSH AREA
0 500 1000 1500
SCALE IN FEET
RI/FS
McINTOSH PLANT SITE
WOODWARD-CLYDE CONSULTANTS
OLIN CHEMICAL CORPORATION
CHARLESTON, TENNESSEE
90B449C
FACILITY LAYOUT MAP
2

5 8 0522


NORTH
CIBA-GEIGY CORP.
OLIN CORPORATION
BOUNDARY OF OPERABLE UNIT 2
BASIN
PROPERTY LINE (BOUNDARY OF OPERABLE UNIT 1)
WP 9A
BRINE FILTER BACKWASH PONDS (clean closed)
CHROMIUM DRUM STORAGE PAD (clean closed)
SANITARY LANDFILLS (2) (closed)
SL 1
SL 2
SL 3
WEAK BRINE POND(closed)
WWB
POLLUTION ABATEMENT (pH) POND (clean closed)
STORMWATER POND (clean closed)
WW12
DH-3
MERCURY CELL PLANT AREA (decommissioned)
MERCURY DRUM STORAGE PAD(clean closed)
MERCURY WASTE PILE STORAGE PAD (clean closed)
CA 2
PE-3D
CA 3
DIAPHRAGM CELL BRINE PONDS(active process)
DISCHARGE DITCH
RIVER
STRONG BRINE POND (closed)
DH-1
MW-13
BR-8
BR-7D
BR-7
OUTFALL
WP-8
PL 4S
PL 4D
LIME PONDS(2)(closed)
CA-1
WP-14
ASH PONDS (inactive)
PL 10S
PL 10D
WASTEWATER DITCH
TOMBIGBEE
ASH POND (active)
MP-15
CA 5
CA-4
HEXACHLOROBENZENE/PCB STORAGE BUILDING (clean closed)
HEXACHLOROBENZENE SPOIL AREA (removed)
PL 6S
PL 6D
PL 8S
PL 8D
OLD PLANT (CPC) LANDFILL (closed)
RIVER RD
CPC PLANT AREA (decommissioned)
TCAN HYDROLYZER (clean closed)
HAZARDOUS WASTE DRUM (FLAMMABLE)STORAGE PAD (clean closed)
Olin also owns property on west side of Hwy. 43
HWY 43
OLIN CORPORATION PROPERTY LINE
LEGEND:
BOUNDARY OF OU 1
BOUNDARY OF OU-2
MARSH AREA
PL-4S ALLUVIAL AQUIFER WELLS
DH 3 MIOCENE AQUIFER WELLS
0 500 1000 1500
SCALE IN FEET
NOTE:
PROCESS WATERWELL (WA) LOCATIONS ARE APPROXIMATE
RI/FS
McINTOSH PLANT SITE
WOODWARD-CLYDE CONSULTANTS
OLIN CHEMICAL CORPORATION
CHARLESTON, TENNESSEE
90B449C
GROUNDWATER SAMPLING WELL LOCATION MAP
3

3 8 0523

CIBA GEIGY CORP.



LEGEND:

- • GRAB SAMPLE LOCATION FOR TAL MERCURY
- •) GRAB SAMPLE LOCATION FOR CLP ANALYSIS
- ■ CORE SAMPLE LOCATION
- □ SURFACE WATER SAMPLE LOCATION

DATE	REVISIONS	REVN/CHKD

RI/FS
McINTOSH PLANT SITE

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

OLIN CHEMICAL CORPORATION
CHARLESTON, TENNESSEE

SCALE	MADE BY G. T.	DATE 10/3/91	FILE NO.
AS SHOWN	CHECKED BY M. J. S.	DATE 12/9/91	91B448C

SURFACE SEDIMENT, CORE AND SURFACE WATER SAMPLE LOCATIONS

FIGURE 4

APPENDIX A

PRELIMINARY GROUNDWATER DATA

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	DH-1 (µg/l)	DH-3 (µg/l)	PE-3D (µg/l)	PL-4S (µg/l)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	3J	U
2-BUTANONE	U	U	U	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	11B	5BJ	21B	7BJ
BENZENE	U	U	U	U
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	U	U	U	U
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	6J	U	U	U
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	U	36	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	7BJ	6BJ	24B	7BJ
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

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C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	PL-8D (µg/l)	D/PL-8D (µg/l)	PL-8S (µg/l)	PL-9D (µg/l)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	180	150	92	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	76B	60B	56B	8BJ
BENZENE	U	U	U	U
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	U	U	U	U
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	U	U	U	U
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	U	U	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	11BJ	16B	22B	17B
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	PL-9S (µg/l)	PL-10D (µg/l)	PL-10S (µg/l)	SL-2 (µg/l)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	U	100	200D	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	8BJ	40B	72B	13B
BENZENE	U	U	U	U
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	U	U	U	3J
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	U	U	U	U
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	U	56	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	17B	9BJ	22B	9BJ
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	SL-3 (µg/l)	SL-4 (µg/l)	WP-6 (µg/l)	WP-9A (µg/l)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	5J	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	U	U	96	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	U	12B	20B	9BJ
BENZENE	U	U	200D	U
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	U	21	13J	U
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	9J	U	2500D	U
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	3J	220D	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	8BJ	8BJ	15B	7BJ
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	BR-7 (µg/l)	BR-7D (µg/l)	BR-8 (µg/l)	CA-1 (µg/l)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	3J	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	6J	U	U	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	7BJ	9BJ	22B	U
BENZENE	7J	30	U	U
BROMODICHLOROMETHANE	U	4J	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	U	U	U	U
CARBON TETRACHLORIDE	8J	U	U	U
CHLOROBENZENE	180	380D	430D	45
CHLOROETHANE	U	U	U	U
CHOLOROFORM	1200D	260D	270	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	15B	5BJ	12BJ	8BJ
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	CA-2 (µg/l)	CA-3 (µg/l)	CA-4 (µg/l)	CA-5 (µg/l)
1,1,1-TRICHLOROETHANE	U	5J	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	5J	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	U	U	U	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	5J	17	U	11
BENZENE	18	U	U	U
BROMODICHLOROMETHANE	3J	11	U	8J
BROMOFORM	U	3J	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	U	U	U	U
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	140	U	U	9J
CHLOROETHANE	U	U	U	U
CHOLOROFORM	99	71	37	230D
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	5J	U	3J
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	11B	12B	6BJ	9BJ
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	E-1 (µg/l)	E-2 (µg/l)	E-4 (µg/l)	E-5 (µg/l)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	2BJ	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	U	U	U	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	U	U	7BJ	44B
BENZENE	U	U	U	U
BROMODICHLOROMETHANE	U	U	U	65
BROMOFORM	U	U	U	31
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	U	9J	7J	4J
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	10	U	22	U
CHLOROETHANE	U	U	U	U
CHOLOROFORM	40	U	58	380
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	40
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	7BJ	4BJ	11B	12BJ
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	MP-13 (µg/l)	MP-14 (µg/l)	MP-15 (µg/l)	PL-4D (µg/l)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	62	16	5BJ	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	220BD	57B	26B	U
BENZENE	U	350D	350D	U
BROMODICHLOROMETHANE	U	43	21	U
BROMOFORM	U	12	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	U	U	U	U
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	63	1700D	1900D	U
CHLOROETHANE	U	U	U	U
CHOLOROFORM	14	980D	510D	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	21	7J	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	13B	75B	160B	4BJ
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	WW-8 (µg/l)	WW-12 (µg/l)	D/WW-12 (µg/l)
1,1,1-TRICHLOROETHANE	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U
1,1-DICHLOROETHANE	U	U	U
1,1-DICHLOROETHENE	U	U	U
1,2-DICHLOROPROPANE	U	U	U
1,2-DICHOLOROETHANE	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U
2-BUTANONE	U	U	U
2-HEXANONE	U	U	U
4-METHYL-2-PENTANONE	U	U	U
ACETONE	U	U	U
BENZENE	U	U	U
BROMODICHLOROMETHANE	U	U	U
BROMOFORM	U	U	U
BROMOMETHANE	U	U	U
CARBON DISULFIDE	U	U	U
CARBON TETRACHLORIDE	U	U	U
CHLOROBENZENE	3J	99	88
CHLOROETHANE	U	U	U
CHOLOROFORM	U	U	U
CHOLOROMETHANE	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U
DIBROMOCHLOROMETHANE	U	U	U
ETHYLBENZENE	U	U	U
METHYLENE CHLORIDE	18B	6BJ	4BJ
STYRENE	U	U	U
TETRACHLOROETHENE	U	U	U
TOLUENE	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U
TRICHLOROETHENE	U	U	U
VINYL CHLORIDE	U	U	U
XYLENE (TOTAL)	U	U	U

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X The detected concentrations from the two GC columns varied more than a factor of 2.

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	DH-1 (µg/l)	DH-3 (µg/l)	PE-3D (µg/l)	PL-4S (µg/l)	PL-8D (µg/l)	D/PL-8D (µg/l)
1,2,4-TRICHLOROBENZENE	U	U	22	U	U	U
1,2-DICHLOROBENZENE	U	U	210D	U	U	U
1,3-DICHLOROBENZENE	U	U	U	U	U	U
1,4-DICHLOROBENZENE	8J	U	7J	U	U	U
2,4,5-TRICHLOROPHENOL	U	U	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U	U	U
2-CHLOROPHENOL	U	U	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U	U	U
2-METHYLPHENOL	U	U	U	U	U	U
2-NITROANILINE	U	U	U	U	U	U
2-NITROPHENOL	U	U	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U	U	U
3-NITROANILINE	U	U	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U	U	U
4-CHLOROANILINE	U	U	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U	U	U
4-METHYLPHENOL	U	U	U	U	U	U
4-NITROANILINE	U	U	U	U	U	U
4-NITROPHENOL	U	U	U	U	U	U
ACENAPHTHENE	U	U	U	U	U	U
ACENAPHTHYLENE	U	U	U	U	U	U
ANTHRACENE	U	U	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U	U	U
BENZO(A)PYRENE	U	U	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	3BJ	4BJ	6BJ	3BJ	U	3BJ
BUTYLBENZYLPHTHALATE	U	U	U	U	U	U
CARBAZOLE	U	U	U	U	U	U
CHRYSENE	U	U	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U	U	U

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	DH-1 (µg/l)	DH-3 (µg/l)	PE-3D (µg/l)	PL-4S (µg/l)	PL-8D (µg/l)	D/PL-8D (µg/l)
DIBENZOFURAN	U	U	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U	U	U
FLUORANTHENE	U	U	U	U	U	U
FLUORENE	U	U	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U	U	U
HEXACHLOROBUTADIENE	U	U	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U	U	U
HEXACHLOROETHANE	U	U	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U	U	U
ISOPHORONE	U	U	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U	U	U
NAPHTHALENE	U	U	U	U	U	U
NITROBENZENE	U	U	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U	U	U
PHENANTHRENE	U	U	U	U	U	U
PHENOL	U	U	U	U	U	U
PYRENE	U	U	U	U	U	U

NOTES:

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C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	PL-8S (µg/l)	PL-9D (µg/l)	PL-9S (µg/l)	PL-10D (µg/l)	PL-10S (µg/l)	SL-2 (µg/l)
1,2,4-TRICHLOROBENZENE	U	U	U	U	U	U
1,2-DICHLOROBENZENE	U	U	U	U	U	U
1,3-DICHLOROBENZENE	U	U	U	U	U	U
1,4-DICHLOROBENZENE	U	U	U	U	U	U
2,4,5-TRICHLOROPHENOL	U	U	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U	U	U
2-CHLOROPHENOL	U	U	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U	U	U
2-METHYLPHENOL	U	U	U	U	U	U
2-NITROANILINE	U	U	U	U	U	U
2-NITROPHENOL	U	U	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U	U	U
3-NITROANILINE	U	U	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U	U	U
4-CHLOROANILINE	U	U	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U	U	U
4-METHYLPHENOL	U	U	U	U	U	U
4-NITROANILINE	U	U	U	U	U	U
4-NITROPHENOL	U	U	U	U	U	U
ACENAPHTHENE	U	U	U	U	U	U
ACENAPHTHYLENE	U	U	U	U	U	U
ANTHRACENE	U	U	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U	U	U
BENZO(A)PYRENE	U	U	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	3BJ	U	1BJ	U	2BJ	2BJ
BUTYLBENZYLPHTHALATE	U	U	U	U	U	U
CARBAZOLE	U	U	U	U	U	U
CHRYSENE	U	U	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U	U	U

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	PL-8S (μg/l)	PL-9D (μg/l)	PL-9S (μg/l)	PL-10D (μg/l)	PL-10S (μg/l)	SL-2 (μg/l)
DIBENZOFURAN	U	U	U	U	U	U
DIETHYLPHTHALATE	U	2J	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U	U	U
FLUORANTHENE	U	U	U	U	U	U
FLUORENE	U	U	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U	U	U
HEXACHLOROBUTADIENE	U	U	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U	U	U
HEXACHLOROETHANE	U	U	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U	U	U
ISOPHORONE	U	U	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U	U	U
NAPHTHALENE	U	U	U	U	U	U
NITROBENZENE	U	U	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U	U	U
PHENANTHRENE	U	U	U	U	U	U
PHENOL	U	U	U	U	U	U
PYRENE	U	U	U	U	U	U

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SL-3 (µg/l)	SL-4 (µg/l)	WP-6 (µg/l)	WP-9A (µg/l)
1,2,4-TRICHLOROBENZENE	U	U	140	U
1,2-DICHLOROBENZENE	U	U	1800D	U
1,3-DICHLOROBENZENE	U	U	140	U
1,4-DICHLOROBENZENE	U	U	2500D	U
2,4,5-TRICHLOROPHENOL	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U
2,4-DICHLOROPHENOL	U	U	18J	U
2,4-DIMETHYLPHENOL	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U
2-CHLOROPHENOL	U	U	16J	U
2-METHYLNAPHTHALENE	U	U	U	U
2-METHYLPHENOL	U	U	U	U
2-NITROANILINE	U	U	U	U
2-NITROPHENOL	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U
3-NITROANILINE	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U
4-CHLOROANILINE	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U
4-METHYLPHENOL	U	U	U	U
4-NITROANILINE	U	U	U	U
4-NITROPHENOL	U	U	U	U
ACENAPHTHENE	U	U	U	U
ACENAPHTHYLENE	U	U	U	U
ANTHRACENE	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U
BENZO(A)PYRENE	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	1BJ	3BJ	U	U
BUTYLBENZYLPHTHALATE	U	U	U	U
CARBAZOLE	U	U	U	U
CHRYSENE	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SL-3 (µg/l)	SL-4 (µg/l)	WP-6 (µg/l)	WP-9A (µg/l)
DIBENZOFURAN	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U
FLUORANTHENE	U	U	U	U
FLUORENE	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U
HEXACHLOROBUTADIENE	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U
HEXACHLOROETHANE	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U
ISOPHORONE	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U
NAPHTHALENE	U	U	U	U
NITROBENZENE	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U
PHENANTHRENE	U	U	U	U
PHENOL	U	U	U	U
PYRENE	U	U	U	U

NOTES:

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J An estimated value below the Contract Required Quantitation Limit.
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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	BR-7 (µg/l)	B4-7D (µg/l)	BR-8 (µg/l)	CA-1 (µg/l)	CA-2 (µg/l)
1,2,4-TRICHLOROBENZENE	93	22	220	U	17
1,2-DICHLOROBENZENE	1200D	620D	4000D	31	36
1,3-DICHLOROBENZENE	96	47	270	U	15
1,4-DICHLOROBENZENE	1500D	770D	4100D	42	220D
2,4,5-TRICHLOROPHENOL	U	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U	U
2,4-DICHLOROPHENOL	U	U	59	U	3J
2,4-DIMETHYLPHENOL	U	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U	U
2-CHLOROPHENOL	U	U	80	U	4J
2-METHYLNAPHTHALENE	U	U	U	U	U
2-METHYLPHENOL	U	U	U	U	U
2-NITROANILINE	U	U	U	U	U
2-NITROPHENOL	U	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U	U
3-NITROANILINE	U	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U	U
4-CHLOROANILINE	U	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U	U
4-METHYLPHENOL	U	U	U	U	U
4-NITROANILINE	U	U	U	U	U
4-NITROPHENOL	U	U	U	U	U
ACENAPHTHENE	U	U	U	U	U
ACENAPHTHYLENE	U	U	U	U	U
ANTHRACENE	U	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U	U
BENZO(A)PYRENE	U	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	45	7J	U	2J	2J
BUTYLBENZYLPHTHALATE	U	U	U	U	U
CARBAZOLE	U	U	U	U	U
CHRYSENE	U	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U	U

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	BR-7 (µg/l)	BR-7D (µg/l)	BR-8 (µg/l)	CA-1 (µg/l)	CA-2 (µg/l)
DIBENZOFURAN	U	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U	U
FLUORANTHENE	U	U	U	U	U
FLUORENE	U	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U	U
HEXACHLOROBUTADIENE	U	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U	U
HEXACHLOROETHANE	U	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U	U
ISOPHORONE	U	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U	U
NAPHTHALENE	U	U	U	U	U
NITROBENZENE	U	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U	U
PHENANTHRENE	U	U	U	U	U
PHENOL	U	U	U	U	3J
PYRENE	U	U	U	U	U

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J An estimated value below the Contract Required Quantitation Limit.
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X The detected concentrations from the two GC columns varied more than a factor of 2.

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	CA-3 (µg/l)	CA-4 (µg/l)	CA-5 (µg/l)	E-1 (µg/l)	E-2 (µg/l)
1,2,4-TRICHLOROBENZENE	5J	U	U	U	U
1,2-DICHLOROBENZENE	23	U	14	U	U
1,3-DICHLOROBENZENE	3J	U	15	U	U
1,4-DICHLOROBENZENE	U	U	U	U	U
2,4,5-TRICHLOROPHENOL	U	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U	U
2-CHLOROPHENOL	U	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U	U
2-METHYLPHENOL	U	U	U	U	U
2-NITROANILINE	U	U	U	U	U
2-NITROPHENOL	U	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U	U
3-NITROANILINE	U	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U	U
4-CHLOROANILINE	U	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U	U
4-METHYLPHENOL	U	U	U	U	U
4-NITROANILINE	U	U	U	U	U
4-NITROPHENOL	U	U	U	U	U
ACENAPHTHENE	U	U	U	U	U
ACENAPHTHYLENE	U	U	U	U	U
ANTHRACENE	U	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U	U
BENZO(A)PYRENE	U	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	U	U	2J	3J	1J
BUTYLBENZYLPHTHALATE	U	U	U	U	U
CARBAZOLE	U	U	U	U	U
CHRYSENE	U	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U	U

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	CA-3 (µg/l)	CA-4 (µg/l)	CA-5 (µg/l)	E-1 (µg/l)	E-2 (µg/l)
DIBENZOFURAN	U	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U	U
FLUORANTHENE	U	U	U	U	U
FLUORENE	U	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U	U
HEXACHLOROBUTADIENE	U	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U	U
HEXACHLOROETHANE	U	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U	U
ISOPHORONE	U	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U	U
NAPHTHALENE	U	U	U	U	U
NITROBENZENE	U	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U	U
PHENANTHRENE	U	U	U	U	U
PHENOL	U	U	U	U	U
PYRENE	U	U	U	U	U

NOTES:

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J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
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X The detected concentrations from the two GC columns varied more than a factor of 2.

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	E-4 (µg/l)	E-5 (µg/l)	MP-13 (µg/l)	MP-14 (µg/l)	MP-15 (µg/l)
1,2,4-TRICHLOROBENZENE	U	7J	13	30	22
1,2-DICHLOROBENZENE	U	28	680D	520D	980D
1,3-DICHLOROBENZENE	U	U	38	37	55
1,4-DICHLOROBENZENE	U	9J	950D	600D	1300D
2,4,5-TRICHLOROPHENOL	U	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U	U
2-CHLOROPHENOL	U	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U	U
2-METHYLPHENOL	U	U	U	U	U
2-NITROANILINE	U	U	U	U	U
2-NITROPHENOL	U	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U	U
3-NITROANILINE	U	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U	U
4-CHLOROANILINE	U	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U	U
4-METHYLPHENOL	U	U	U	U	U
4-NITROANILINE	U	U	U	U	U
4-NITROPHENOL	U	U	U	U	U
ACENAPHTHENE	U	U	U	U	U
ACENAPHTHYLENE	U	U	U	U	U
ANTHRACENE	U	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U	U
BENZO(A)PYRENE	U	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	4J	3J	U	5J	U
BUTYLBENZYLPHTHALATE	U	U	U	U	U
CARBAZOLE	U	U	U	U	U
CHRYSENE	U	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U	U

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	E-4 (µg/l)	E-5 (µg/l)	MP-13 (µg/l)	MP-14 (µg/l)	MP-15 (µg/l)
DIBENZOFURAN	U	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U	U
FLUORANTHENE	U	U	U	U	U
FLUORENE	U	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U	U
HEXACHLOROBUTADIENE	U	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U	U
HEXACHLOROETHANE	U	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U	U
ISOPHORONE	U	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U	U
NAPHTHALENE	U	U	U	U	U
NITROBENZENE	U	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U	U
PHENANTHRENE	U	U	U	U	U
PHENOL	U	U	U	U	U
PYRENE	U	U	U	U	U

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	PL-4D (μg/l)	WW-8 (μg/l)	WW-12 (μg/l)	D/WW-12 (μg/l)
1,2,4-TRICHLOROBENZENE	U	U	U	U
1,2-DICHLOROBENZENE	U	U	50	44
1,3-DICHLOROBENZENE	U	U	3J	2J
1,4-DICHLOROBENZENE	U	U	68	59
2,4,5-TRICHLOROPHENOL	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U
2-CHLOROPHENOL	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U
2-METHYLPHENOL	U	U	U	U
2-NITROANILINE	U	U	U	U
2-NITROPHENOL	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U
3-NITROANILINE	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U
4-CHLOROANILINE	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U
4-METHYLPHENOL	U	U	U	U
4-NITROANILINE	U	U	U	U
4-NITROPHENOL	U	U	U	U
ACENAPHTHENE	U	U	U	U
ACENAPHTHYLENE	U	U	U	U
ANTHRACENE	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U
BENZO(A)PYRENE	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	2J	1J	5J	2J
BUTYLBENZYLPHTHALATE	U	U	U	U
CARBAZOLE	U	U	U	U
CHRYSENE	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	PL-4D (µg/l)	WW-8 (µg/l)	WW-012 (µg/l)	D/WW-12 (µg/l)
DIBENZOFURAN	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U
FLUORANTHENE	U	U	U	U
FLUORENE	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U
HEXACHLOROBUTADIENE	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U
HEXACHLOROETHANE	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U
ISOPHORONE	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U
NAPHTHALENE	U	U	U	U
NITROBENZENE	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U
PHENANTHRENE	U	U	U	U
PHENOL	U	U	U	U
PYRENE	U	U	U	U

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	DH-1 (µg/l)	DH-3 (µg/l)	PE-3D (µg/l)	PL-4S (µg/l)	PL-8D (µg/l)	D/PL-8D (µg/l)
4,4'-DDD	U	U	U	U	U	U
4,4'-DDE	U	U	U	U	U	U
4,4'-DDT	U	U	U	U	U	U
ALDRIN	U	U	U	U	U	U
ALPHA CHLORDANE	U	U	U	U	U	U
ALPHA-BHC	U	U	U	U	U	U
AROCLOR - 1016	U	U	U	U	U	U
AROCLOR - 1221	U	U	U	U	U	U
AROCLOR - 1232	U	U	U	U	U	U
AROCLOR - 1242	U	U	U	U	U	U
AROCLOR - 1248	U	U	U	U	U	U
AROCLOR - 1254	U	U	U	U	U	U
AROCLOR - 1260	U	U	U	U	U	U
BETA-BHC	U	U	U	U	U	U
DELTA-BHC	U	U	U	U	U	U
DIELDRIN	U	U	U	U	U	U
ENDOSULFAN I	U	U	U	U	U	U
ENDOSULFAN II	U	U	U	U	U	U
ENDOSULFAN SULFATE	U	U	U	U	U	U
ENDRIN	U	U	U	U	U	U
ENDRIN ALDEHYDE	U	U	U	U	U	U
ENDRIN KETONE	U	U	U	U	U	U
GAMMA CHLORDANE	U	U	U	U	U	U
GAMMA-BHC	U	U	U	U	U	U
HEPTACHLOR	U	U	U	U	U	U
HEPTACHLOR EPOXIDE	U	U	U	U	U	U
METHOXYCHLOR	U	U	U	U	U	U
TOXAPHENE	U	U	U	U	U	U

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	PL-8S (µg/l)	PL-9D (µg/l)	PL-9S (µg/l)	PL-10D (µg/l)	PL-10S (µg/l)	SL-2 (µg/l)
4,4'-DDD	U	U	U	U	U	U
4,4'-DDE	U	U	U	U	U	U
4,4'-DDT	U	U	U	U	U	U
ALDRIN	U	U	U	U	U	U
ALPHA CHLORDANE	U	U	U	U	U	U
ALPHA-BHC	U	U	U	U	0.78P	U
AROCLOR - 1016	U	U	U	U	U	U
AROCLOR - 1221	U	U	U	U	U	U
AROCLOR - 1232	U	U	U	U	U	U
AROCLOR - 1242	U	U	U	U	U	U
AROCLOR - 1248	U	U	U	U	U	U
AROCLOR - 1254	U	U	U	U	U	U
AROCLOR - 1260	U	U	U	U	U	U
BETA-BHC	U	U	U	U	0.19P	U
DELTA-BHC	U	U	U	U	0.080P	U
DIELDRIN	U	U	U	U	U	U
ENDOSULFAN I	U	U	U	U	U	U
ENDOSULFAN II	U	U	U	U	U	U
ENDOSULFAN SULFATE	U	U	U	U	U	U
ENDRIN	U	U	U	U	U	U
ENDRIN ALDEHYDE	U	U	U	U	U	U
ENDRIN KETONE	U	U	U	U	U	U
GAMMA CHLORDANE	U	U	U	U	U	U
GAMMA-BHC	U	U	U	U	0.15P	U
HEPTACHLOR	U	U	U	U	U	U
HEPTACHLOR EPOXIDE	U	U	U	U	U	U
METHOXYCHLOR	U	U	U	U	U	U
TOXAPHENE	U	U	U	U	U	U

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	SL-3 (µg/l)	SL-4 (µg/l)	WP-6 (µg/l)	WP-9A (µg/l)
4,4'-DDD	U	U	U	U
4,4'-DDE	U	U	U	U
4,4'-DDT	U	U	U	U
ALDRIN	U	U	U	U
ALPHA CHLORDANE	U	U	U	U
ALPHA-BHC	U	U	5.4DC	U
AROCLOR - 1016	U	U	U	U
AROCLOR - 1221	U	U	U	U
AROCLOR - 1232	U	U	U	U
AROCLOR - 1242	U	U	U	U
AROCLOR - 1248	U	U	U	U
AROCLOR - 1254	U	U	U	U
AROCLOR - 1260	U	U	U	U
BETA-BHC	U	U	1.1D	U
DELTA-BHC	U	U	0.48P	U
DIELDRIN	36PX	U	15P	U
ENDOSULFAN I	U	U	U	U
ENDOSULFAN II	U	U	U	U
ENDOSULFAN SULFATE	U	U	U	U
ENDRIN	U	U	U	U
ENDRIN ALDEHYDE	U	U	U	U
ENDRIN KETONE	U	U	U	U
GAMMA CHLORDANE	U	U	U	U
GAMMA-BHC	U	U	U	U
HEPTACHLOR	U	U	U	U
HEPTACHLOR EPOXIDE	U	U	U	U
METHOXYCHLOR	U	U	U	U
TOXAPHENE	U	U	U	U

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	BR-7 (µg/l)	BR-7D (µg/l)	BR-8 (µg/l)	CA-1 (µg/l)	CA-2 (µg/l)
4,4'-DDD	U	U	U	U	U
4,4'-DDE	U	U	U	U	U
4,4'-DDT	U	U	U	U	U
ALDRIN	U	U	U	U	U
ALPHA CHLORDANE	0.055	U	U	U	U
ALPHA-BHC	2.5CD	1.7CD	1.4CD	U	2.3D
AROCLOR - 1016	U	U	U	U	U
AROCLOR - 1221	U	U	U	U	U
AROCLOR - 1232	U	U	U	U	U
AROCLOR - 1242	U	U	U	U	U
AROCLOR - 1248	U	U	U	U	U
AROCLOR - 1254	U	U	U	U	U
AROCLOR - 1260	U	U	U	U	U
BETA-BHC	1.6CD	0.79	0.70	U	0.53
DELTA-BHC	U	0.16PX	0.18	U	0.26
DIELDRIN	U	U	U	U	U
ENDOSULFAN I	U	U	U	U	U
ENDOSULFAN II	0.28PX	U	U	U	U
ENDOSULFAN SULFATE	U	U	U	U	U
ENDRIN	U	U	U	U	U
ENDRIN ALDEHYDE	U	U	U	U	U
ENDRIN KETONE	U	U	U	U	U
GAMMA CHLORDANE	U	U	U	U	U
GAMMA-BHC	0.51	0.35P	0.31P	U	0.33P
HEPTACHLOR	U	U	U	U	U
HEPTACHLOR EPOXIDE	U	U	U	U	U
METHOXYCHLOR	U	U	U	U	U
TOXAPHENE	U	U	U	U	U

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	CA-3 (µg/l)	CA-4 (µg/l)	CA-5 (µg/l)	E-1 (µg/l)	E-2 (µg/l)
4,4'-DDD	U	U	U	U	U
4,4'-DDE	U	U	U	U	U
4,4'-DDT	U	U	U	U	U
ALDRIN	U	U	U	U	U
ALPHA CHLORDANE	U	U	U	U	U
ALPHA-BHC	U	0.31	1.2D	0.36	U
AROCLOR - 1016	U	U	U	U	U
AROCLOR - 1221	U	U	U	U	U
AROCLOR - 1232	U	U	U	U	U
AROCLOR - 1242	U	U	U	U	U
AROCLOR - 1248	U	U	U	U	U
AROCLOR - 1254	U	U	U	U	U
AROCLOR - 1260	U	U	U	U	U
BETA-BHC	U	U	0.38	0.099	U
DELTA-BHC	U	0.089	0.12P	U	U
DIELDRIN	U	U	U	U	U
ENDOSULFAN I	U	U	U	U	U
ENDOSULFAN II	U	U	U	U	U
ENDOSULFAN SULFATE	16P	U	U	U	U
ENDRIN	16PX	U	U	U	U
ENDRIN ALDEHYDE	18P	U	U	U	U
ENDRIN KETONE	U	U	U	U	U
GAMMA CHLORDANE	U	U	U	U	U
GAMMA-BHC	U	U	0.20P	0.066P	U
HEPTACHLOR	U	U	U	U	U
HEPTACHLOR EPOXIDE	U	U	U	U	U
METHOXYCHLOR	U	U	U	U	U
TOXAPHENE	U	U	U	U	U

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PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	E-4 (µg/l)	E-5 (µg/l)	MP-13 (µg/l)	MP-14 (µg/l)	MP-15 (µg/l)
4,4'-DDD	U	U	U	U	U
4,4'-DDE	U	U	U	U	U
4,4'-DDT	U	U	U	U	U
ALDRIN	U	U	U	0.067PX	U
ALPHA CHLORDANE	U	U	U	0.081PX	U
ALPHA-BHC	0.95D	0.13P	0.35	5.6CD	1.3CD
AROCLOR - 1016	U	U	U	U	U
AROCLOR - 1221	U	U	U	U	U
AROCLOR - 1232	U	U	U	U	U
AROCLOR - 1242	U	U	U	U	U
AROCLOR - 1248	U	U	U	U	U
AROCLOR - 1254	U	U	U	U	U
AROCLOR - 1260	U	U	U	U	U
BETA-BHC	0.62	0.23P	0.11P	2.2D	0.49D
DELTA-BHC	0.093PX	U	U	0.57PD	0.29P
DIELDRIN	U	U	U	U	U
ENDOSULFAN I	0.053P	U	U	U	U
ENDOSULFAN II	U	U	U	U	U
ENDOSULFAN SULFATE	U	U	U	U	U
ENDRIN	U	U	U	U	U
ENDRIN ALDEHYDE	U	0.11PX	U	U	U
ENDRIN KETONE	U	U	U	U	U
GAMMA CHLORDANE	U	U	0.20P	U	U
GAMMA-BHC	0.21	U	U	1.0PD	0.64
HEPTACHLOR	U	U	U	U	U
HEPTACHLOR EPOXIDE	U	U	U	U	U
METHOXYCHLOR	U	U	U	U	U
TOXAPHENE	U	U	U	U	U

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E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from reanalysis of the sample extract after dilution

PRELIMINARY GROUNDWATER DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	PL-4D (µg/l)	WW-8 (µg/l)	WW-12 (µg/l)	D/WW-12 (µg/l)
4,4'-DDD	U	U	U	U
4,4'-DDE	U	U	U	U
4,4'-DDT	U	U	U	U
ALDRIN	U	U	U	U
ALPHA CHLORDANE	U	U	U	U
ALPHA-BHC	U	U	U	U
AROCLOR - 1016	U	U	U	U
AROCLOR - 1221	U	U	U	U
AROCLOR - 1232	U	U	U	U
AROCLOR - 1242	U	U	U	U
AROCLOR - 1248	U	U	U	U
AROCLOR - 1254	U	U	U	U
AROCLOR - 1260	U	U	U	U
BETA-BHC	U	U	U	U
DELTA-BHC	U	U	U	U
DIELDRIN	U	U	U	U
ENDOSULFAN I	U	U	U	U
ENDOSULFAN II	U	U	U	U
ENDOSULFAN SULFATE	U	U	U	U
ENDRIN	U	U	U	U
ENDRIN ALDEHYDE	U	U	U	U
ENDRIN KETONE	U	U	U	U
GAMMA CHLORDANE	U	U	U	U
GAMMA-BHC	U	U	U	U
HEPTACHLOR	U	U	U	U
HEPTACHLOR EPOXIDE	U	U	U	U
METHOXYCHLOR	U	U	U	U
TOXAPHENE	U	U	U	U

NOTES:

B Analyte was found in the associated blank as well as the sample.
C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.

PRELIMINARY GROUNDWATER DATA
TOTAL INORGANIC CONSTITUENTS

Compound	DH-1 (µg/l)	DH-3 (µg/l)	PE-3D (µg/l)	PL-4S (µg/l)	PL-8D (µg/l)	D/PL-8D (µg/l)
ANTIMONY	ND	ND	ND	51.0	38.9	ND
ARSENIC	ND	3.7	ND	32.7	ND	ND
BERYLLIUM	2.0	2.0	4.8	43.0	2.1	2.0
CADMIUM	3.1	3.3	2.0	2.8	2.6	ND
CHROMIUM	11.9	12.5	6.9	8.7	8.7	6.2
COPPER	57.0	53.8	24.3	106	16.8	15.9
LEAD	10.7	20.3	9.9	4.3	3.9	3.8
MERCURY	ND	ND	0.56	ND	ND	ND
NICKEL	20.9	16.9	64.4	223	ND	ND
SELENIUM	ND	ND	3.1	ND	2.0	ND
SILVER	2.2	ND	5.1	40.2	ND	ND
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	211	188	177	509	73.6	3.0

NOTES:

1 ND = Not detected.

PRELIMINARY GROUNDWATER DATA
TOTAL INORGANIC CONSTITUENTS

Compound	PL-8S (µg/l)	PL-9D (µg/l)	PL-9S (µg/l)	PL-10D (µg/l)	PL-10S (µg/l)	SL-2 (µg/l)
ANTIMONY	41.5	ND	33.9	ND	41.5	50.2
ARSENIC	ND	ND	9.5	ND	ND	ND
BERYLLIUM	2.2	1.8	7.6	2.5	1.9	3.4
CADMIUM	3.1	2.9	2.1	ND	3.4	2.8
CHROMIUM	13.5	ND	10.0	5.9	10.4	120
COPPER	25.7	8.6	13.6	17.7	17.2	49.8
LEAD	4.8	ND	6.1	ND	ND	54.7
MERCURY	ND	ND	ND	ND	2.2	ND
NICKEL	12.4	13.3	38.9	18.2	94.6	32.5
SELENIUM	ND	ND	ND	7.4	2.6	ND
SILVER	ND	3.3	2.1	2.3	4.4	ND
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	434	ND	100	147	83.5	427

PRELIMINARY GROUNDWATER DATA
TOTAL INORGANIC CONSTITUENTS

Compound	SL-3 (µg/l)	WP-6 (µg/l)	WP-9A (µg/l)
ANTIMONY	50.2	74.7	ND
ARSENIC	4.3	ND	6.0
BERYLLIUM	5.6	75.3	2.6
CADMIUM	14.7	5.6	3.2
CHROMIUM	234	33.4	144
COPPER	56.6	39.0	48.6
LEAD	36.3	6.6	17.0
MERCURY	0.45	ND	0.41
NICKEL	27.6	293	57.4
SELENIUM	ND	12.9	3.6
SILVER	ND	14.4	ND
THALLIUM	ND	ND	ND
ZINC	239	1130	299

PRELIMINARY GROUNDWATER DATA
TOTAL INORGANIC CONSTITUENTS

Compound	BR-7 (µg/l)	BR-7D (µg/l)	BR-8 (µg/l)	CA-1 (µg/l)	CA-2 (µg/l)	CA-3 (µg/l)
ANTIMONY	ND	ND	ND	ND	ND	ND
ARSENIC	ND	ND	ND	3.0	ND	ND
BERYLLIUM	52.0	58.0	51.0	53.0	57.0	57.0
CADMIUM	ND	ND	ND	ND	ND	ND
CHROMIUM	107	ND	ND	ND	ND	88.0
COPPER	ND	ND	ND	ND	ND	89.0
LEAD	ND	51.0	3.2	9.0	24.4	3.4
MERCURY	2.8	130	1.2	ND	22	3.4
NICKEL	ND	190	ND	ND	157	338
SELENIUM	2.3	ND	27	31.9	2.2	ND
SILVER	ND	ND	ND	ND	ND	29.0
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	2080	206	ND	199	777	87.0

NOTES:

1 ND = Not detected.

PRELIMINARY GROUNDWATER DATA
TOTAL INORGANIC CONSTITUENTS

Compound	CA-4 (μg/l)	CA-5 (μg/l)	E-1 (μg/l)	E-2 (μg/l)	E-4 (μg/l)	E-5 (μg/l)
ANTIMONY	ND	ND	ND	ND	ND	ND
ARSENIC	ND	ND	ND	4.8	ND	ND
BERYLLIUM	54.0	56.0	51.0	50.0	55.0	68.0
CADMIUM	ND	ND	ND	ND	ND	33.0
CHROMIUM	ND	ND	ND	137	ND	ND
COPPER	ND	ND	ND	ND	ND	ND
LEAD	10.3	17.3	6.6	44.6	33.0	7.3
MERCURY	9.7	22	0.23	0.56	2.6	2.8
NICKEL	194	195	ND	ND	ND	1310
SELENIUM	ND	4.0	4.7	ND	ND	ND
SILVER	ND	ND	ND	ND	ND	ND
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	999	213	ND	32.0	ND	3060

PRELIMINARY GROUNDWATER DATA
TOTAL INORGANIC CONSTITUENTS

Compound	MP-13 (μg/l)	MP-14 (μg/l)	MP-15 (μg/l)	SL-4 (μg/l)	WW-8 (μg/l)
ANTIMONY	ND	ND	ND	2120	ND
ARSENIC	ND	ND	ND	ND	ND
BERYLLIUM	62.0	61.0	81.0	115	54.0
CADMIUM	20.0	95.0	25.0	ND	ND
CHROMIUM	ND	213	719	363	ND
COPPER	56.0	244	184	3430	ND
LEAD	252	18.6	19.3	30.5	6.0
MERCURY	64	5.8	130	ND	ND
NICKEL	800	899	588	58.9	ND
SELENIUM	ND	ND	ND	ND	ND
SILVER	35.0	ND	ND	ND	ND
THALLIUM	ND	ND	ND	ND	ND
ZINC	1090	1420	2280	319	ND

PRELIMINARY GROUNDWATER DATA
TOTAL INORGANIC CONSTITUENTS

Compound	WW-12 (µg/l)	D/WW-12 (µg/l)
ANTIMONY	ND	ND
ARSENIC	ND	ND
BERYLLIUM	51.0	52.0
CADMIUM	ND	ND
CHROMIUM	ND	ND
COPPER	ND	ND
LEAD	ND	ND
MERCURY	ND	ND
NICKEL	ND	ND
SELENIUM	2.7	ND
SILVER	ND	ND
THALLIUM	ND	ND
ZINC	1240	1290

PRELIMINARY GROUNDWATER DATA
DISSOLVED INORGANIC CONSTITUENTS

Compound	DH-1 (µg/l)	DH-3 (µg/l)	E-1 (µg/l)	E-2 (µg/l)	PE-3D (µg/l)	PL-4S (µg/l)
ANTIMONY	ND[1]	ND	ND	ND	34.7	ND
ARSENIC	ND	3.2	ND	ND	ND	ND
BERYLLIUM	105	115	2.9	2.8	17.1	100
CADMIUM	ND	ND	ND	ND	4.3	ND
CHROMIUM	76.0	ND	ND	ND	34.9	ND
COPPER	18.5	1010	7.5	6.8	81.5	625
LEAD	ND	ND	ND	5.4	6.1	ND
MERCURY	ND	ND	ND	ND	ND	ND
NICKEL	39.0	ND	17.4	11.5	187	239
SELENIUM	ND	ND	ND	ND	3.1	2.8
SILVER	115	105	ND	2.3	9.7	135
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	10.5	81.1	25.5	59.0	497	584

NOTES:

1 ND = Not detected.

PRELIMINARY GROUNDWATER DATA
DISSOLVED INORGANIC CONSTITUENTS

Compound	PL-8D (µg/l)	D/PL-8D (µg/l)	PL-8S (µg/l)	PL-9D (µg/l)	PL-9S (µg/l)	PL-10D (µg/l)
ANTIMONY	ND	ND	ND	ND	ND	ND
ARSENIC	ND	ND	ND	ND	ND	ND
BERYLLIUM	100	95.0	100	85.0	90.0	95.0
CADMIUM	ND	ND	ND	ND	ND	ND
CHROMIUM	5.2	4.1	ND	ND	ND	ND
COPPER	440	480	440	350	525	505
LEAD	ND	ND	ND	ND	ND	ND
MERCURY	ND	ND	ND	ND	ND	ND
NICKEL	ND	ND	ND	15.0	30.3	14.4
SELENIUM	ND	ND	ND	ND	2.0	ND
SILVER	ND	130	110	ND	185	105
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	34.8	20.0	39.4	62.9	111	50.7

PRELIMINARY GROUNDWATER DATA
DISSOLVED INORGANIC CONSTITUENTS

Compound	PL-10S (µg/l)	SL-2 (µg/l)	SL-3 (µg/l)	SL-4 (µg/l)	WP-6 (µg/l)	WP-9A (µg/l)
ANTIMONY	ND	ND	ND	ND	ND	ND
ARSENIC	ND	ND	ND	ND	ND	ND
BERYLLIUM	95.0	110	110	115	105	2.0
CADMIUM	ND	ND	ND	ND	ND	ND
CHROMIUM	ND	ND	ND	ND	ND	ND
COPPER	420	9.0	11.4	8.4	415	8.3
LEAD	ND	ND	4.1	3.1	ND	ND
MERCURY	1.8	ND	ND	ND	ND	ND
NICKEL	93.2	ND	ND	14.2	ND	17.1
SELENIUM	ND	ND	ND	ND	4.2	2.4
SILVER	ND	ND	ND	ND	105	ND
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	124	65.9	56.5	55.8	ND	168

PRELIMINARY GROUNDWATER DATA
DISSOLVED INORGANIC CONSTITUENTS

Compound	BR-7 (µg/l)	BR-7D (µg/l)	BR-8 (µg/l)	CA-1 (µg/l)	CA-2 (µg/l)	CA-3 (µg/l)
ANTIMONY	325	ND	ND	ND	341	512
ARSENIC	ND	ND	ND	ND	ND	ND
BERYLLIUM	25.0	20.0	23.0	15.0	29.0	22.0
CADMIUM	20.0	ND	ND	ND	ND	ND
CHROMIUM	116	241	96.0	41.0	312	176
COPPER	41.0	81.0	41.0	23.0	80.0	64.0
LEAD	ND	ND	ND	56.5	125	ND
MERCURY	1.8	130	11.0	ND	1.5	0.78
NICKEL	137	302	156	ND	516	217
SELENIUM	ND	ND	ND	ND	ND	ND
SILVER	ND	ND	ND	ND	ND	49.0
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	124	398	55.4	9.9	244	306

NOTES:

1 ND = Not detected.

PRELIMINARY GROUNDWATER DATA
DISSOLVED INORGANIC CONSTITUENTS

Compound	CA-4 (µg/l)	CA-5 (µg/l)	E-4 (µg/l)	E-5 (µg/l)	MP-13 (µg/l)	MP-14 (µg/l)
ANTIMONY	ND	343	ND	389	ND	ND
ARSENIC	ND	ND	ND	ND	ND	ND
BERYLLIUM	18.0	22.0	42.0	68.0	33.0	39.0
CADMIUM	ND	ND	ND	33.0	25.0	25.0
CHROMIUM	ND	298	239	ND	ND	247
COPPER	ND	57.0	51.0	175	52.0	209
LEAD	9.7	13.6	5.2	41.9	441	ND
MERCURY	9.2	26.0	28.0	27.0	51.0	120
NICKEL	ND	238	ND	1240	701	700
SELENIUM	2.2	3.8	ND	48.7	19.1	45.9
SILVER	ND	ND	51.0	35.0	67.0	45.0
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	175	237	96.7	1420	624	1040

PRELIMINARY GROUNDWATER DATA
DISSOLVED INORGANIC CONSTITUENTS

Compound	MP-15 (µg/l)	PL-4D (µg/l)	WW-8 (µg/l)	WW-12 (µg/l)	D/WW-12 (µg/l)
ANTIMONY	ND	ND	ND	ND	ND
ARSENIC	ND	ND	ND	ND	ND
BERYLLIUM	42.0	31.0	14.0	16.0	17.0
CADMIUM	ND	36.0	ND	ND	ND
CHROMIUM	206	313	ND	ND	ND
COPPER	269	112	36.0	21.0	41.0
LEAD	33.2	ND	3.0	ND	8.7
MERCURY	84.0	ND	ND	ND	ND
NICKEL	566	324	ND	ND	ND
SELENIUM	31.9	2.1	ND	2.9	ND
SILVER	45.0	32.0	ND	ND	ND
THALLIUM	ND	ND	ND	ND	ND
ZINC	881	36.6	8.8	46.5	ND

APPENDIX B

PRELIMINARY SURFACE WATER DATA

PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	WG-C9/01 (µg/l)	WG-C9/02 (µg/l)	WG-F2/01 (µg/l)	WG-G6/01 (µg/l)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	U	U	U	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	8BJ	15B	11	30B
BENZENE	U	U	U	U
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	U	U	1J	3J
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	U	U	U	U
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	U	U	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	34B	40B	26B	56B
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

B Analyte was found in the associated blank as well as the sample.
C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from analysis of the sample extract after dilution.

PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS 3 8 0571

Compound	D/WG-G6/01 (µg/l)	WG-G6/02 (µg/l)	WG-H5/01 (µg/l)	WG-H5/02 (µg/l)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	U	U	U	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	11B	9BJ	11B	27
BENZENE	U	U	U	U
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	2J	2J	U	U
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	U	U	U	U
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	U	U	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	39B	50B	28B	22B
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

B Analyte was found in the associated blank as well as the sample.
C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from analysis of the sample extract after dilution.
2 Field duplicate sample.

PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	WG-H9/01 (µg/l)	WG-H9/02 (µg/l)	WG-BD03 (µg/l)	WG-DD02 (µg/l)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	U	U	U	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	10B	U	U	U
BENZENE	U	U	U	U
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	4J	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	2J	U	U	U
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	U	U	U	U
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	U	U	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	40B	37B	19B	20B
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

B Analyte was found in the associated blank as well as the sample.
C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from reanalysis of the sample extract after dilution.

PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

3 8 0573

Compound	WG-OD25 (µg/l)
1,1,1-TRICHLOROETHANE	U
1,1,2,2-TETRACHLOROETHANE	U
1,1,2-TRICHLOROETHANE	U
1,1-DICHLOROETHANE	U
1,1-DICHLOROETHENE	U
1,2-DICHLOROPROPANE	U
1,2-DICHOLOROETHANE	U
1,2-DICHOLOROETHENE(TOTAL)	U
2-BUTANONE	U
2-HEXANONE	U
4-METHYL-2-PENTANONE	U
ACETONE	U
BENZENE	U
BROMODICHLOROMETHANE	U
BROMOFORM	U
BROMOMETHANE	U
CARBON DISULFIDE	U
CARBON TETRACHLORIDE	U
CHLOROBENZENE	U
CHLOROETHANE	U
CHOLOROFORM	3J
CHOLOROMETHANE	U
CIS-1,3-DICHLOROPROPENE	U
DIBROMOCHLOROMETHANE	U
ETHYLBENZENE	U
METHYLENE CHLORIDE	U
STYRENE	18B
TETRACHLOROETHENE	U
TOLUENE	U
TRANS-1,3-DICHLOROPROPENE	U
TRICHLOROETHENE	U
VINYL CHLORIDE	U
XYLENE (TOTAL)	U

NOTES:

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J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from reanalysis of the sample extract after dilution.

PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	WG-C9/01 (µg/l)	WG-C9/02 (µg/l)	WG-F2/01 (µg/l)	WG-G6/01 (µg/l)	D/WG-G6/01 (µg/l)	WG-G6/02 (µg/l)
1,2,4-TRICHLOROBENZENE	U	U	U	U	U	U
1,2-DICHLOROBENZENE	U	U	U	U	U	U
1,3-DICHLOROBENZENE	U	U	U	U	U	U
1,4-DICHLOROBENZENE	U	U	U	U	U	U
2,4,5-TRICHLOROPHENOL	U	U	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U	U	U
2-CHLOROPHENOL	U	U	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U	U	U
2-METHYLPHENOL	U	U	U	U	U	U
2-NITROANILINE	U	U	U	U	U	U
2-NITROPHENOL	U	U	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U	U	U
3-NITROANILINE	U	U	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U	U	U
4-CHLOROANILINE	U	U	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U	U	U
4-METHYLPHENOL	U	U	U	U	U	U
4-NITROANILINE	U	U	U	U	U	U
4-NITROPHENOL	U	U	U	U	U	U
ACENAPHTHENE	U	U	U	U	U	U
ACENAPHTHYLENE	U	U	U	U	U	U
ANTHRACENE	U	U	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U	U	U
BENZO(A)PYRENE	U	U	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	4J	4J	0.9J	11	5J	2J
BUTYLBENZYLPHTHALATE	U	U	U	U	U	U
CARBAZOLE	U	U	U	U	U	U
CHRYSENE	U	U	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U	U	U

PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	WG-C9/01 (µg/l)	WG-C9/02 (µg/l)	WG-F2/01 (µg/l)	WG-G6/01 (µg/l)	D/WG-G6/01 (µg/l)	WG-G6/02 (µg/l)
DIBENZOFURAN	U	U	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U	U	U
FLUORANTHENE	U	U	U	U	U	U
FLUORENE	U	U	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U	U	U
HEXACHLOROBUTADIENE	U	U	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U	U	U
HEXACHLOROETHANE	U	U	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U	U	U
ISOPHORONE	U	U	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U	U	U
NAPHTHALENE	U	U	U	U	U	U
NITROBENZENE	U	U	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U	U	U
PHENANTHRENE	U	U	U	U	U	U
PHENOL	U	U	U	U	U	U
PYRENE	U	U	U	U	U	U

NOTES:

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X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from reanalysis of the sample extract after dilution.

PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	WG-H5/01 (µg/l)	WG-H5/02 (µg/l)	WG-H9/01 (µg/l)	WG-H9/02 (µg/l)	WG-BD03 (µg/l)	WG-DD02 (µg/l)
1,2,4-TRICHLOROBENZENE	U	U	U	U	U	U
1,2-DICHLOROBENZENE	U	U	U	U	U	U
1,3-DICHLOROBENZENE	U	U	U	U	U	U
1,4-DICHLOROBENZENE	U	U	U	U	U	U
2,4,5-TRICHLOROPHENOL	U	U	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U	U	U
2-CHLOROPHENOL	U	U	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U	U	U
2-METHYLPHENOL	U	U	U	U	U	U
2-NITROANILINE	U	U	U	U	U	U
2-NITROPHENOL	U	U	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U	U	U
3-NITROANILINE	U	U	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U	U	U
4-CHLOROANILINE	U	U	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U	U	U
4-METHYLPHENOL	U	U	U	U	U	U
4-NITROANILINE	U	U	U	U	U	U
4-NITROPHENOL	U	U	U	U	U	U
ACENAPHTHENE	U	U	U	U	U	U
ACENAPHTHYLENE	U	U	U	U	U	U
ANTHRACENE	U	U	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U	U	U
BENZO(A)PYRENE	U	U	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	3J	2J	2J	5J	4J	7J
BUTYLBENZYLPHTHALATE	U	U	U	U	U	U
CARBAZOLE	U	U	U	U	U	U
CHRYSENE	U	U	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U	U	U

PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	WG-H5/01 (µg/l)	WG-H5/02 (µg/l)	WG-H9/01 (µg/l)	WG-H9/02 (µg/l)	WG-BD03 (µg/l)	WG-DD02 (µg/l)
DIBENZOFURAN	U	U	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U	U	U
FLUORANTHENE	U	U	U	U	U	U
FLUORENE	U	U	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U	U	U
HEXACHLOROBUTADIENE	U	U	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U	U	U
HEXACHLOROETHANE	U	U	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U	U	U
ISOPHORONE	U	U	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U	U	U
NAPHTHALENE	U	U	U	U	U	U
NITROBENZENE	U	U	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U	U	U
PHENANTHRENE	U	U	U	U	U	U
PHENOL	U	U	U	U	U	U
PYRENE	U	U	U	U	U	U

NOTES:

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C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
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PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	WG-OD25 (µg/l)
1,2,4-TRICHLOROBENZENE	U
1,2-DICHLOROBENZENE	U
1,3-DICHLOROBENZENE	U
1,4-DICHLOROBENZENE	U
2,4,5-TRICHLOROPHENOL	U
2,4,6-TRICHLOROPHENOL	U
2,4-DICHLOROPHENOL	U
2,4-DIMETHYLPHENOL	U
2,4-DINITROPHENOL	U
2,4-DINITROTOLUENE	U
2,6-DINITROTOLUENE	U
2-CHLORONAPHTHALENE	U
2-CHLOROPHENOL	U
2-METHYLNAPHTHALENE	U
2-METHYLPHENOL	U
2-NITROANILINE	U
2-NITROPHENOL	U
3,3'-DICHLOROBENZIDINE	U
3-NITROANILINE	U
4,6-DINITRO-2-METHYLPHENOL	U
4-BROMOPHENYL-PHENYLETHER	U
4-CHLORO-3-METHYLPHENOL	U
4-CHLOROANILINE	U
4-CHLOROPHENYL-PHENYLETHER	U
4-METHYLPHENOL	U
4-NITROANILINE	U
4-NITROPHENOL	U
ACENAPHTHENE	U
ACENAPHTHYLENE	U
ANTHRACENE	U
BENZO(A)ANTHRACENE	U
BENZO(A)PYRENE	U
BENZO(B)FLUORANTHENE	U
BENZO(G,H,I)PERYLENE	U
BENZO(K)FLUORANTHENE	U
BIS(2-CHLOROETHOXY)METHANE	U
BIS(2-CHLOROETHYL)ETHER	U
BIS(2-CHLOROISOPROPYL)ETHER	U
BIS(2-ETHYLHEXYL)PHTHALATE	U
BUTYLBENZYLPHTHALATE	U
CARBAZOLE	U
CHRYSENE	U
DI-N-BUTYLPHTHALATE	U
DI-N-OCTYL PHTHALATE	U
DIBENZO(A,H)ANTHRACENE	U

PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	WG-OD25 (µg/l)
DIBENZOFURAN	U
DIETHYLPHTHALATE	U
DIMETHYL PHTHALATE	U
FLUORANTHENE	U
FLUORENE	U
HEXACHLOROBENZENE	U
HEXACHLOROBUTADIENE	U
HEXACHLOROCYCLOPENTADIENE	U
HEXACHLOROETHANE	U
INDENO(1,2,3-CD)PYRENE	U
ISOPHORONE	U
N-NITROSO-DI-N-PROPYLAMINE	U
N-NITROSODIPHENYLAMINE (1)	U
NAPHTHALENE	U
NITROBENZENE	U
PENTACHLOROPHENOL	U
PHENANTHRENE	U
PHENOL	U
PYRENE	U

NOTES:

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J An estimated value below the Contract Required Quantitation Limit.
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U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.

PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	WG-C9/01 (µg/l)	WG-C9/02 (µg/l)	WG-F2/01 (µg/l)	WG-G6/01 (µg/l)	D/WG-G6/01 (µg/l)
4,4'-DDD	U	U	U	U	U
4,4'-DDE	U	U	U	U	U
4,4'-DDT	U	U	U	U	U
ALDRIN	U	U	U	U	U
ALPHA CHLORDANE	U	U	U	U	U
ALPHA-BHC	U	U	U	U	U
AROCLOR - 1016	U	U	U	U	U
AROCLOR - 1221	U	U	U	U	U
AROCLOR - 1232	U	U	U	U	U
AROCLOR - 1242	U	U	U	U	U
AROCLOR - 1248	U	U	U	U	U
AROCLOR - 1254	U	U	U	U	U
AROCLOR - 1260	U	U	U	U	U
BETA-BHC	U	U	U	U	U
DELTA-BHC	U	U	U	U	U
DIELDRIN	U	U	U	U	U
ENDOSULFAN I	U	U	U	U	U
ENDOSULFAN II	U	U	U	U	U
ENDOSULFAN SULFATE	U	U	U	U	U
ENDRIN	U	U	U	U	U
ENDRIN ALDEHYDE	U	U	U	U	U
ENDRIN KETONE	U	U	U	U	U
GAMMA CHLORDANE	U	U	U	U	U
GAMMA-BHC	U	U	U	U	U
HEPTACHLOR	U	U	U	U	U
HEPTACHLOR EPOXIDE	U	U	U	U	U
METHOXYCHLOR	U	U	U	U	U
TOXAPHENE	U	U	U	U	U

NOTES:

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J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.

PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	WG-G6/02 (µg/l)	WG-H5/01 (µg/l)	WG-H5/02 (µg/l)	WG-H9/01 (µg/l)	WG-H9/02 (µg/l)
4,4'-DDD	U	U	U	U	U
4,4'-DDE	U	U	U	U	U
4,4'-DDT	U	U	U	U	U
ALDRIN	U	U	U	U	U
ALPHA CHLORDANE	U	U	U	U	U
ALPHA-BHC	U	U	U	U	U
AROCLOR - 1016	U	U	U	U	U
AROCLOR - 1221	U	U	U	U	U
AROCLOR - 1232	U	U	U	U	U
AROCLOR - 1242	U	U	U	U	U
AROCLOR - 1248	U	U	U	U	U
AROCLOR - 1254	U	U	U	U	U
AROCLOR - 1260	U	U	U	U	U
BETA-BHC	U	U	U	U	U
DELTA-BHC	U	U	U	U	U
DIELDRIN	U	U	U	U	U
ENDOSULFAN I	U	U	U	U	U
ENDOSULFAN II	U	U	U	U	U
ENDOSULFAN SULFATE	U	U	U	U	U
ENDRIN	U	U	U	U	U
ENDRIN ALDEHYDE	U	U	U	U	U
ENDRIN KETONE	U	U	U	U	U
GAMMA CHLORDANE	U	U	U	U	U
GAMMA-BHC	U	U	U	U	U
HEPTACHLOR	U	U	U	U	U
HEPTACHLOR EPOXIDE	U	U	U	U	U
METHOXYCHLOR	U	U	U	U	U
TOXAPHENE	U	U	U	U	U

NOTES:

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D Result from a diluted sample.
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PRELIMINARY SURFACE WATER DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	WG-BD03 (µg/l)	WG-DD02 (µg/l)	WG-0D25 (µg/l)
4,4'-DDD	U	U	U
4,4'-DDE	U	U	U
4,4'-DDT	U	U	U
ALDRIN	U	U	U
ALPHA CHLORDANE	U	U	U
ALPHA-BHC	U	0.18P	0.22
AROCLOR - 1016	U	U	U
AROCLOR - 1221	U	U	U
AROCLOR - 1232	U	U	U
AROCLOR - 1242	U	U	U
AROCLOR - 1248	U	U	U
AROCLOR - 1254	U	U	U
AROCLOR - 1260	U	U	U
BETA-BHC	U	0.053P	0.077
DELTA-BHC	U	U	U
DIELDRIN	U	U	U
ENDOSULFAN I	U	U	U
ENDOSULFAN II	U	U	U
ENDOSULFAN SULFATE	U	U	U
ENDRIN	U	U	U
ENDRIN ALDEHYDE	U	U	U
ENDRIN KETONE	U	U	U
GAMMA CHLORDANE	U	U	U
GAMMA-BHC	U	U	U
HEPTACHLOR	U	U	U
HEPTACHLOR EPOXIDE	U	U	U
METHOXYCHLOR	U	U	U
TOXAPHENE	U	U	U

NOTES:

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C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
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U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.

PRELIMINARY SURFACE WATER DATA
TOTAL INORGANIC CONSTITUENTS

Compound	WG-C9/01 (µg/l)	WG-C9/02 (µg/l)	WG-F2/01 (µg/l)	WG-06/01 (µg/l)	D/WG-G6/01 (µg/l)	WG-G6/02 (µg/l)
ANTIMONY	ND	ND	ND	ND	ND	ND
ARSENIC	ND	ND	ND	ND	ND	ND
BERYLLIUM	2.5	2.5	1.8	1.7	1.7	1.8
CADMIUM	ND	ND	ND	ND	ND	ND
CHROMIUM	ND	ND	4.3	ND	4.5	5.6
COPPER	8.7	9.5	7.8	7.9	8.7	12.0
CYANIDE	ND	ND	ND	ND	ND	ND
LEAD	ND	ND	ND	3.5	3.4	ND
MERCURY	0.26	0.45	1.5	1.1	0.98	0.83
NICKEL	12.2	21.0	ND	10.8	10.2	ND
SELENIUM	ND	ND	ND	ND	ND	ND
SILVER	ND	ND	5.8	ND	2.2	ND
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	88.1	86.5	111	39.0	121	166

PRELIMINARY SURFACE WATER DATA
TOTAL INORGANIC CONSTITUENTS

Compound	WG-H5/01 (µg/l)	WG-H5/02 (µg/l)	WG-H9/01 (µg/l)	WG-H9/02 (µg/l)	WG-BD03 (µg/l)	WG-DD02 (µg/l)
ANTIMONY	ND	ND	ND	ND	ND	ND
ARSENIC	ND	ND	ND	ND	ND	6.7
BERYLLIUM	2.4	1.7	2.5	2.5	1.7	2.1
CADMIUM	ND	2.1	ND	ND	ND	ND
CHROMIUM	4.3	5.5	ND	ND	8.5	7.8
COPPER	9.1	9.0	6.4	7.2	9.2	14.4
CYANIDE	ND[1]	ND	ND	ND	ND	ND
LEAD	ND	ND	ND	ND	ND	3.8
MERCURY	1.5	1.8	1.1	1.2	1.1	2.8
NICKEL	10.2	ND	ND	11.1	ND	23.0
SELENIUM	ND	2.8	ND	ND	ND	ND
SILVER	ND	ND	ND	ND	ND	2.9
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	59.9	83.6	79.8	44.5	98.8	215

PRELIMINARY SURFACE WATER DATA
TOTAL INORGANIC CONSTITUENTS

Compound	WG-OD25 (µg/l)
ANTIMONY	ND
ARSENIC	12.2
BERYLLIUM	3.3
CADMIUM	2.2
CHROMIUM	11.1
COPPER	22.6
CYANIDE	ND
LEAD	3.7
MERCURY	2.8
NICKEL	45.9
SELENIUM	4.9
SILVER	ND
THALLIUM	ND
ZINC	444

PRELIMINARY SURFACE WATER
DISSOLVED INORGANIC CONSTITUENTS

COMPOUND	WG-C9/01 (µg/l)	WG-C9/02 (µg/l)	WG-F2/01 (µg/l)	WG-G6/01 (µg/l)	D/WG-G6/01 (µg/l)	WG-G6/02 (µg/l)
ANTIMONY	ND	ND	ND	ND	ND	ND
ARSENIC	3.4	ND	ND	ND	ND	ND
BERYLLIUM	2.2	2.2	2.3	2.3	2.2	2.2
CADMIUM	ND	ND	ND	ND	ND	ND
CHROMIUM	7.3	5.7	4.1	138	32.8	23.8
COPPER	8.7	6.9	3.8	12.3	6.2	6.2
LEAD	ND	ND	ND	ND	ND	ND
MERCURY	ND	ND	ND	ND	ND	ND
NICKEL	14.7	14.1	ND	98.4	30.7	35.8
SELENIUM	ND	ND	ND	ND	ND	ND
SILVER	2.4	2.0	3.2	2.2	ND	2.3
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	80.1	36.9	ND	94.1	65.4	42.1

NOTES:

1 ND = Not detected.

PRELIMINARY SURFACE WATER DATA
DISSOLVED INORGANIC CONSTITUENTS

Compound	WG-H5/01 (µg/l)	WG-H5/02 (µg/l)	WG-H9/01 (µg/l)	WG-H9/02 (µg/l)	WG-BD03 (µg/l)	WG-DD02 (µg/l)
ANTIMONY	ND	ND	ND	ND	ND	ND
ARSENIC	ND	ND	ND	ND	ND	ND
BERYLLIUM	2.2	2.3	2.3	2.2	2.2	2.3
CADMIUM	ND	ND	ND	ND	ND	ND
CHROMIUM	882	207	6.0	ND	174	136
COPPER	33.6	10.4	4.5	5.4	10.2	11.4
LEAD	ND	ND	ND	ND	ND	ND
MERCURY	ND	ND	ND	ND	ND	ND
NICKEL	616	136	11.2	ND	101	81.9
SELENIUM	ND	ND	ND	ND	ND	4.9
SILVER	5.4	ND	2.3	4.4	3.0	3.7
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	43.8	22.7	4.9	23.9	8.6	11.5

PRELIMINARY SURFACE WATER DATA
DISSOLVED INORGANIC CONSTITUENTS

Compound	WG-0D25 (µg/l)
ANTIMONY	ND
ARSENIC	8.8
BERYLLIUM	2.7
CADMIUM	ND
CHROMIUM	140
COPPER	14.5
LEAD	ND
MERCURY	0.65
NICKEL	117
SELENIUM	ND
SILVER	6.3
THALLIUM	ND
ZINC	253

APPENDIX C

PRELIMINARY SEDIMENT DATA

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

0520

Compound	SG-G3 (µg/kg)	SG-H4 (µg/kg)	SG-K4 (µg/kg)
1,1,1-TRICHLOROETHANE	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U
1,1-DICHLOROETHANE	U	U	U
1,1-DICHLOROETHENE	U	U	U
1,2-DICHLOROPROPANE	U	U	U
1,2-DICHOLOROETHANE	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U
2-BUTANONE	U	U	U
2-HEXANONE	U	U	U
4-METHYL-2-PENTANONE	U	U	U
ACETONE	69B	240B	180B
BENZENE	U	U	U
BROMODICHLOROMETHANE	U	U	U
BROMOFORM	U	U	U
BROMOMETHANE	U	U	U
CARBON DISULFIDE	6J	13J	3J
CARBON TETRACHLORIDE	U	U	U
CHLOROBENZENE	1000D	100	9J
CHLOROETHANE	U	U	U
CHOLOROFORM	U	U	U
CHOLOROMETHANE	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U
DIBROMOCHLOROMETHANE	U	U	U
ETHYLBENZENE	U	U	U
METHYLENE CHLORIDE	22B	31B	45B
STYRENE	U	U	U
TETRACHLOROETHENE	U	U	U
TOLUENE	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U
TRICHLOROETHENE	U	U	U
VINYL CHLORIDE	U	U	U
XYLENE (TOTAL)	U	U	U

NOTES:

B Analyte was found in the associated blank as well as the sample.
C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from analysis of the sample extract after dilution.

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	SG-C5 (µg/kg)	SG-C6 (µg/kg)	DSG-C6[2] (µg/kg)
1,1,1-TRICHLOROETHANE	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U
1,1-DICHLOROETHANE	U	U	U
1,1-DICHLOROETHENE	U	U	U
1,2-DICHLOROPROPANE	U	U	U
1,2-DICHOLOROETHANE	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U
2-BUTANONE	U	64	140
2-HEXANONE	U	U	U
4-METHYL-2-PENTANONE	U	U	U
ACETONE	59B	470B	670B
BENZENE	U	U	U
BROMODICHLOROMETHANE	U	U	U
BROMOFORM	U	U	U
BROMOMETHANE	U	U	U
CARBON DISULFIDE	U	30J	27J
CARBON TETRACHLORIDE	U	U	U
CHLOROBENZENE	460D	380	400
CHLOROETHANE	U	U	U
CHOLOROFORM	U	U	U
CHOLOROMETHANE	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U
DIBROMOCHLOROMETHANE	U	U	U
ETHYLBENZENE	U	U	U
METHYLENE CHLORIDE	17B	43B	39BJ
STYRENE	U	U	U
TETRACHLOROETHENE	U	U	U
TOLUENE	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U
TRICHLOROETHENE	U	U	U
VINYL CHLORIDE	U	U	U
XYLENE (TOTAL)	U	U	U

NOTES:

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C Compound confirmed by GC/MS.
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E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
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2 Field duplicate sample.

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

3 8 0592

Compound	SG-D6 (µg/kg)	SG-J6 (µg/kg)	SG-F7 (µg/kg)	SG-J7 (µg/kg)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	U	31J	72	62
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	540B	380B	320B	250B
BENZENE	U	U	U	U
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	11J	18J	64	5J
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	650	10J	70	12J
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	U	U	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	55B	150B	35BJ	28B
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

B Analyte was found in the associated blank as well as the sample.
C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

Compound	SG-G8 (µg/kg)	SG-H8 (µg/kg)	SG-G9 (µg/kg)	SG-C10 (µg/kg)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	50	U	45	200
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	600B	1000BE	350B	890B
BENZENE	U	U	U	U
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	20J	U	23J	28J
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	12J	14J	39J	48
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	U	U	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	45B	46B	41BJ	33BJ
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

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- C Compound confirmed by GC/MS.
- D Result from a diluted sample.
- E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
- J An estimated value below the Contract Required Quantitation Limit.
- P Greater than 25 percent difference for detected concentrations between the two GC columns.
- U Compound was analyzed for, but not detected.
- X The detected concentrations from the two GC columns varied more than a factor of 2.
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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS 3 8 0594

Compound	SG-D10 (µg/kg)	SG-I10 (µg/kg)	SG-BD05 (µg/kg)	SG-BD06 (µg/kg)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	140	60	34	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	600B	220B	110B	59B
BENZENE	U	U	U	U
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	56	17J	U	6J
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	45J	21J	42	46
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	U	U	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	45BJ	50B	58B	47B
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

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D Result from a diluted sample.
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J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

3 8 0595

Compound	SC-C1/02 (µg/kg)	SC-C1/04 (µg/kg)	SC-C2/02 (µg/kg)	SC-C2/04 (µg/kg)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	U	U	46	45
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	210B	220B	110B	180B
BENZENE	U	U	40	180D
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	U	7J	U	U
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	140	U	2500	5800
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	U	U	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	69B	42B	33B	27B
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

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D Result from a diluted sample.
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U Compound was analyzed for, but not detected.
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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

3 8 0596

Compound	SC-C3/02 (µg/kg)	SC-C3/04 (µg/kg)	SG-DD01 (µg/kg)
1,1,1-TRICHLOROETHANE	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U
1,1-DICHLOROETHANE	U	U	U
1,1-DICHLOROETHENE	U	U	U
1,2-DICHLOROPROPANE	U	U	U
1,2-DICHOLOROETHANE	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U
2-BUTANONE	14J	26	24
2-HEXANONE	U	U	U
4-METHYL-2-PENTANONE	U	U	U
ACETONE	180B	170B	270B
BENZENE	U	30	U
BROMODICHLOROMETHANE	U	U	U
BROMOFORM	U	U	U
BROMOMETHANE	U	U	U
CARBON DISULFIDE	U	U	U
CARBON TETRACHLORIDE	U	U	U
CHLOROBENZENE	350D	480D	23
CHLOROETHANE	U	U	U
CHOLOROFORM	U	U	U
CHOLOROMETHANE	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U
DIBROMOCHLOROMETHANE	U	U	U
ETHYLBENZENE	U	U	U
METHYLENE CHLORIDE	32B	33B	99B
STYRENE	U	U	U
TETRACHLOROETHENE	U	U	U
TOLUENE	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U
TRICHLOROETHENE	U	U	U
VINYL CHLORIDE	U	U	U
XYLENE (TOTAL)	U	U	U

NOTES:

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C Compound confirmed by GC/MS.
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J An estimated value below the Contract Required Quantitation Limit.
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U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
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2 Field duplicate sample.

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS

3 8 0597

Compound	SG-OD06 (µg/kg)	SG-OD17 (µg/kg)	D/SG-OD17 (µg/kg)	SG-OD20 (µg/kg)
1,1,1-TRICHLOROETHANE	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	U	U	U	U
1,1,2-TRICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHANE	U	U	U	U
1,1-DICHLOROETHENE	U	U	U	U
1,2-DICHLOROPROPANE	U	U	U	U
1,2-DICHOLOROETHANE	U	U	U	U
1,2-DICHOLOROETHENE(TOTAL)	U	U	U	U
2-BUTANONE	U	U	U	U
2-HEXANONE	U	U	U	U
4-METHYL-2-PENTANONE	U	U	U	U
ACETONE	100B	17B	15B	86B
BENZENE	U	U	U	U
BROMODICHLOROMETHANE	U	U	U	U
BROMOFORM	U	U	U	U
BROMOMETHANE	U	U	U	U
CARBON DISULFIDE	U	U	U	U
CARBON TETRACHLORIDE	U	U	U	U
CHLOROBENZENE	74	4J	3J	U
CHLOROETHANE	U	U	U	U
CHOLOROFORM	U	U	U	U
CHOLOROMETHANE	U	U	U	U
CIS-1,3-DICHLOROPROPENE	U	U	U	U
DIBROMOCHLOROMETHANE	U	U	U	U
ETHYLBENZENE	U	U	U	U
METHYLENE CHLORIDE	48B	46B	36B	31B
STYRENE	U	U	U	U
TETRACHLOROETHENE	U	U	U	U
TOLUENE	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	U	U	U	U
TRICHLOROETHENE	U	U	U	U
VINYL CHLORIDE	U	U	U	U
XYLENE (TOTAL)	U	U	U	U

NOTES:

B Analyte was found in the associated blank as well as the sample.
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D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SG-G3 (µg/kg)	SG-H4 (µg/kg)	SG-K4 (µg/kg)	SG-C5 (µg/kg)
1,2,4-TRICHLOROBENZENE	U	U	U	U
1,2-DICHLOROBENZENE	U	U	U	U
1,3-DICHLOROBENZENE	180J	U	U	200J
1,4-DICHLOROBENZENE	510J	U	U	470
2,4,5-TRICHLOROPHENOL	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U
2-CHLOROPHENOL	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U
2-METHYLPHENOL	U	U	U	U
2-NITROANILINE	U	U	U	U
2-NITROPHENOL	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U
3-NITROANILINE	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U
4-CHLOROANILINE	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U
4-METHYLPHENOL	U	U	U	U
4-NITROANILINE	U	U	U	U
4-NITROPHENOL	U	U	U	U
ACENAPHTHENE	U	U	U	U
ACENAPHTHYLENE	U	U	U	U
ANTHRACENE	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U
BENZO(A)PYRENE	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	240J	140J	U	2700
BUTYLBENZYLPHTHALATE	U	U	U	U
CARBAZOLE	U	U	U	U
CHRYSENE	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SG-G3 (µg/kg)	SG-H4 (µg/kg)	SG-K4 (µg/kg)	SG-C5 (µg/kg)
DIBENZOFURAN	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U
FLUORANTHENE	U	U	U	U
FLUORENE	U	U	U	U
HEXACHLOROBENZENE	40000D	500J	U	20000D
HEXACHLOROBUTADIENE	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U
HEXACHLOROETHANE	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U
ISOPHORONE	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U
NAPHTHALENE	U	U	U	U
NITROBENZENE	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U
PHENANTHRENE	U	U	U	U
PHENOL	U	U	U	U
PYRENE	U	U	U	U

NOTES:

B Analyte was found in the associated blank as well as the sample.
C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from analysis of the sample extract after dilution.

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SG-C6 (µg/kg)	DSG-C6[2] (µg/kg)	SG-D6 (µg/kg)	SG-J6 (µg/kg)	SG-F7 (µg/kg)	SG-J7 (µg/kg)
1,2,4-TRICHLOROBENZENE	U	U	U	U	U	U
1,2-DICHLOROBENZENE	U	U	U	U	U	U
1,3-DICHLOROBENZENE	U	U	U	U	U	U
1,4-DICHLOROBENZENE	U	U	U	U	U	U
2,4,5-TRICHLOROPHENOL	U	U	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U	U	U
2-CHLOROPHENOL	U	U	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U	U	U
2-METHYLPHENOL	U	U	U	U	U	U
2-NITROANILINE	U	U	U	U	U	U
2-NITROPHENOL	U	U	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U	U	U
3-NITROANILINE	U	U	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U	U	U
4-CHLOROANILINE	U	U	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U	U	U
4-METHYLPHENOL	U	U	U	U	U	U
4-NITROANILINE	U	U	U	U	U	U
4-NITROPHENOL	U	U	U	U	U	U
ACENAPHTHENE	U	U	U	U	U	U
ACENAPHTHYLENE	U	U	U	U	U	U
ANTHRACENE	U	U	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U	U	U
BENZO(A)PYRENE	U	U	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	240J	U	U	U	280J	U
BUTYLBENZYLPHTHALATE	U	U	U	U	U	U
CARBAZOLE	U	U	U	U	U	U
CHRYSENE	U	U	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U	U	U

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SG-C6 (µg/kg)	DSG-C6[2] (µg/kg)	SG-D6 (µg/kg)	SG-J6 (µg/kg)	SG-F7 (µg/kg)	SG-J7 (µg/kg)
DIBENZOFURAN	U	U	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U	U	U
FLUORANTHENE	91J	U	U	U	110J	U
FLUORENE	U	U	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U	U	U
HEXACHLOROBUTADIENE	U	U	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U	U	U
HEXACHLOROETHANE	U	U	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U	U	U
ISOPHORONE	U	U	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U	U	U
NAPHTHALENE	U	U	U	U	U	U
NITROBENZENE	U	U	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U	U	U
PHENANTHRENE	U	U	U	U	U	U
PHENOL	U	U	U	U	U	U
PYRENE	170J	U	U	U	230J	U

NOTES:

B Analyte was found in the associated blank as well as the sample.
C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from reanalysis of the sample extract after dilution.
2 Field duplicate sample.

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SG-G8 (µg/kg)	SG-H8 (µg/kg)	SG-G9 (µg/kg)	SG-C10 (µg/kg)	SG-D10 (µg/kg)
1,2,4-TRICHLOROBENZENE	U	U	U	U	U
1,2-DICHLOROBENZENE	U	U	U	U	U
1,3-DICHLOROBENZENE	U	U	U	U	U
1,4-DICHLOROBENZENE	U	U	U	U	U
2,4,5-TRICHLOROPHENOL	U	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U	U
2-CHLOROPHENOL	U	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U	U
2-METHYLPHENOL	U	U	U	U	U
2-NITROANILINE	U	U	U	U	U
2-NITROPHENOL	U	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U	U
3-NITROANILINE	U	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U	U
4-CHLOROANILINE	U	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U	U
4-METHYLPHENOL	U	U	U	U	U
4-NITROANILINE	U	U	U	U	U
4-NITROPHENOL	U	U	U	U	U
ACENAPHTHENE	U	U	U	U	U
ACENAPHTHYLENE	U	U	U	U	U
ANTHRACENE	U	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U	U
BENZO(A)PYRENE	U	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	410J	U	270J	430J	37000D
BUTYLBENZYLPHTHALATE	U	U	U	U	U
CARBAZOLE	U	U	U	U	U
CHRYSENE	U	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U	U

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SG-G8 (µg/kg)	SG-H8 (µg/kg)	SG-G9 (µg/kg)	SG-C10 (µg/kg)	SG-D10 (µg/kg)
DIBENZOFURAN	U	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U	U
FLUORANTHENE	U	100J	U	U	U
FLUORENE	U	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U	U
HEXACHLOROBUTADIENE	U	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U	U
HEXACHLOROETHANE	U	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U	U
ISOPHORONE	U	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U	U
NAPHTHALENE	U	U	U	U	U
NITROBENZENE	U	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U	U
PHENANTHRENE	U	U	U	U	U
PHENOL	U	U	U	U	U
PYRENE	160J	250J	150J	180J	270J

NOTES:

B Analyte was found in the associated blank as well as the sample.
C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from reanalysis of the sample extract after dilution.

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SG-I10 (µg/kg)	SG-BD05 (µg/kg)	SG-BD06 (µg/kg)
1,2,4-TRICHLOROBENZENE	U	U	U
1,2-DICHLOROBENZENE	U	U	U
1,3-DICHLOROBENZENE	U	U	U
1,4-DICHLOROBENZENE	290J	U	U
2,4,5-TRICHLOROPHENOL	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U
2,4-DICHLOROPHENOL	U	U	U
2,4-DIMETHYLPHENOL	U	U	U
2,4-DINITROPHENOL	U	U	U
2,4-DINITROTOLUENE	U	U	U
2,6-DINITROTOLUENE	U	U	U
2-CHLORONAPHTHALENE	U	U	U
2-CHLOROPHENOL	U	U	U
2-METHYLNAPHTHALENE	U	U	U
2-METHYLPHENOL	U	U	U
2-NITROANILINE	U	U	U
2-NITROPHENOL	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U
3-NITROANILINE	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U
4-CHLOROANILINE	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U
4-METHYLPHENOL	U	U	U
4-NITROANILINE	U	U	U
4-NITROPHENOL	U	U	U
ACENAPHTHENE	U	U	U
ACENAPHTHYLENE	U	U	U
ANTHRACENE	U	U	U
BENZO(A)ANTHRACENE	U	U	U
BENZO(A)PYRENE	U	U	U
BENZO(B)FLUORANTHENE	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U
BENZO(K)FLUORANTHENE	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	U	250BJ	240BJ
BUTYLBENZYLPHTHALATE	U	U	U
CARBAZOLE	U	U	U
CHRYSENE	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SG-I10 (µg/kg)	SG-BD05 (µg/kg)	SG-BD06 (µg/kg)
DIBENZOFURAN	U	U	U
DIETHYLPHTHALATE	U	U	U
DIMETHYL PHTHALATE	U	U	U
FLUORANTHENE	U	U	U
FLUORENE	U	U	U
HEXACHLOROBENZENE	1800	730J	4500
HEXACHLOROBUTADIENE	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U
HEXACHLOROETHANE	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U
ISOPHORONE	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U
NAPHTHALENE	U	U	U
NITROBENZENE	U	U	U
PENTACHLOROPHENOL	U	U	U
PHENANTHRENE	U	U	U
PHENOL	U	U	U
PYRENE	U	U	U

NOTES:

B Analyte was found in the associated blank as well as the sample.
C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from reanalysis of the sample extract after dilution.

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SC-C1/02 (µg/kg)	SC-C1/04 (µg/kg)	SC-C2/02 (µg/kg)	SC-C2/04 (µg/kg)	SC-C3/02 (µg/kg)	SC-C3/04 (µg/kg)
1,2,4-TRICHLOROBENZENE	U	U	U	U	U	U
1,2-DICHLOROBENZENE	U	U	U	U	U	U
1,3-DICHLOROBENZENE	U	U	U	U	U	U
1,4-DICHLOROBENZENE	490J	U	U	U	U	U
2,4,5-TRICHLOROPHENOL	U	U	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U	U	U
2-CHLOROPHENOL	U	U	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U	U	U
2-METHYLPHENOL	U	U	U	U	U	U
2-NITROANILINE	U	U	U	U	U	U
2-NITROPHENOL	U	U	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U	U	U
3-NITROANILINE	U	U	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U	U	U
4-CHLOROANILINE	U	U	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U	U	U
4-METHYLPHENOL	U	U	U	U	U	U
4-NITROANILINE	U	U	U	U	U	U
4-NITROPHENOL	U	U	U	U	U	U
ACENAPHTHENE	U	U	U	U	U	U
ACENAPHTHYLENE	U	U	U	U	U	U
ANTHRACENE	U	U	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U	U	U
BENZO(A)PYRENE	U	U	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	U	U	67BJ	64BJ	400BJ	U
BUTYLBENZYLPHTHALATE	U	U	U	U	U	U
CARBAZOLE	U	U	U	U	U	U
CHRYSENE	U	U	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U	U	U

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SC-C1/02 (µg/kg)	SC-C1/04 (µg/kg)	SC-C2/02 (µg/kg)	SC-C2/04 (µg/kg)	SC-C3/02 (µg/kg)	SC-C3/04 (µg/kg)
DIBENZOFURAN	U	U	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U	U	U
FLUORANTHENE	U	U	U	U	190J	U
FLUORENE	U	U	U	U	U	U
HEXACHLOROBENZENE	U	U	U	U	5800	U
HEXACHLOROBUTADIENE	U	U	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U	U	U
HEXACHLOROETHANE	U	U	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U	U	U
ISOPHORONE	U	U	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U	U	U
NAPHTHALENE	U	U	U	U	U	U
NITROBENZENE	U	U	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U	U	U
PHENANTHRENE	U	U	U	U	210J	U
PHENOL	U	U	U	U	U	U
PYRENE	U	U	U	U	160J	U

NOTES:

B Analyte was found in the associated blank as well as the sample.
C Compound confirmed by GC/MS.
D Result from a diluted sample.
E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from analysis of the sample extract after dilution.

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SG-DD01 (µg/kg)	SG-OD06 (µg/kg)	SG-OD17 (µg/kg)	D/SG-OD17 (µg/kg)	SG-OD20 (µg/kg)
1,2,4-TRICHLOROBENZENE	U	1100	U	U	U
1,2-DICHLOROBENZENE	U	240J	U	U	U
1,3-DICHLOROBENZENE	590J	950	U	U	U
1,4-DICHLOROBENZENE	190J	630	U	U	U
2,4,5-TRICHLOROPHENOL	U	U	U	U	U
2,4,6-TRICHLOROPHENOL	U	U	U	U	U
2,4-DICHLOROPHENOL	U	U	U	U	U
2,4-DIMETHYLPHENOL	U	U	U	U	U
2,4-DINITROPHENOL	U	U	U	U	U
2,4-DINITROTOLUENE	U	U	U	U	U
2,6-DINITROTOLUENE	U	U	U	U	U
2-CHLORONAPHTHALENE	U	U	U	U	U
2-CHLOROPHENOL	U	U	U	U	U
2-METHYLNAPHTHALENE	U	U	U	U	U
2-METHYLPHENOL	U	U	U	U	U
2-NITROANILINE	U	U	U	U	U
2-NITROPHENOL	U	U	U	U	U
3,3'-DICHLOROBENZIDINE	U	U	U	U	U
3-NITROANILINE	U	U	U	U	U
4,6-DINITRO-2-METHYLPHENOL	U	U	U	U	U
4-BROMOPHENYL-PHENYLETHER	U	U	U	U	U
4-CHLORO-3-METHYLPHENOL	U	U	U	U	U
4-CHLOROANILINE	U	U	U	U	U
4-CHLOROPHENYL-PHENYLETHER	U	U	U	U	U
4-METHYLPHENOL	U	U	U	U	U
4-NITROANILINE	U	U	U	U	U
4-NITROPHENOL	U	U	U	U	U
ACENAPHTHENE	U	U	U	U	U
ACENAPHTHYLENE	U	U	U	U	U
ANTHRACENE	U	U	U	U	U
BENZO(A)ANTHRACENE	U	U	U	U	U
BENZO(A)PYRENE	U	U	U	U	U
BENZO(B)FLUORANTHENE	U	U	U	U	U
BENZO(G,H,I)PERYLENE	U	U	U	U	U
BENZO(K)FLUORANTHENE	U	U	U	U	U
BIS(2-CHLOROETHOXY)METHANE	U	U	U	U	U
BIS(2-CHLOROETHYL)ETHER	U	U	U	U	U
BIS(2-CHLOROISOPROPYL)ETHER	U	U	U	U	U
BIS(2-ETHYLHEXYL)PHTHALATE	310J	3500DJ	U	U	U
BUTYLBENZYLPHTHALATE	U	U	U	U	U
CARBAZOLE	U	U	U	U	U
CHRYSENE	U	U	U	U	U
DI-N-BUTYLPHTHALATE	U	U	U	U	U
DI-N-OCTYL PHTHALATE	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	U	U	U	U	U

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS

Compound	SG-DD01 (µg/kg)	SG-OD06 (µg/kg)	SG-OD17 (µg/kg)	D/SG-OD17 (µg/kg)	SG-OD20 (µg/kg)
DIBENZOFURAN	U	U	U	U	U
DIETHYLPHTHALATE	U	U	U	U	U
DIMETHYL PHTHALATE	U	U	U	U	U
FLUORANTHENE	U	U	U	4900J	U
FLUORENE	U	U	U	U	U
HEXACHLOROBENZENE	26000D	19000D	67000	63000	810000D
HEXACHLOROBUTADIENE	U	U	U	U	U
HEXACHLOROCYCLOPENTADIENE	U	U	U	U	U
HEXACHLOROETHANE	U	U	U	U	U
INDENO(1,2,3-CD)PYRENE	U	U	U	U	U
ISOPHORONE	U	U	U	U	U
N-NITROSO-DI-N-PROPYLAMINE	U	U	U	U	U
N-NITROSODIPHENYLAMINE (1)	U	U	U	U	U
NAPHTHALENE	U	U	U	U	U
NITROBENZENE	U	U	U	U	U
PENTACHLOROPHENOL	U	U	U	U	U
PHENANTHRENE	U	U	U	U	U
PHENOL	U	U	U	U	U
PYRENE	U	U	U	3500J	U

NOTES:

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E Concentrations exceeded the calibration range. The original extract was diluted and reanalyzed per the method.
J An estimated value below the Contract Required Quantitation Limit.
P Greater than 25 percent difference for detected concentrations between the two GC columns.
U Compound was analyzed for, but not detected.
X The detected concentrations from the two GC columns varied more than a factor of 2.
1 The designation DL indicates that the results are from reanalysis of the sample extract after dilution.
2 Field duplicate sample.

PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	SG-G3 (µg/kg)	SG-H4 (µg/kg)	SG-K4 (µg/kg)
4,4'-DDD	570CD	490CD	1800CD
4,4'-DDE	930CD	740PCD	1100PCD
4,4'-DDT	170P	420PD	4000D
ALDRIN	4.7P	U	U
ALPHA CHLORDANE	U	U	U
ALPHA-BHC	14P	9.8P	U
AROCLOR - 1016	U	U	U
AROCLOR - 1221	U	U	U
AROCLOR - 1232	U	U	U
AROCLOR - 1242	U	U	U
AROCLOR - 1248	U	U	U
AROCLOR - 1254	U	U	U
AROCLOR - 1260	U	U	U
BETA-BHC	U	U	U
DELTA-BHC	120DPX	U	U
DIELDRIN	U	U	U
ENDOSULFAN I	47PX	63PX	220PX
ENDOSULFAN II	U	U	U
ENDOSULFAN SULFATE	U	U	U
ENDRIN	U	U	U
ENDRIN ALDEHYDE	U	U	U
ENDRIN KETONE	U	U	U
GAMMA CHLORDANE	U	U	U
GAMMA-BHC	U	U	U
HEPTACHLOR	U	U	U
HEPTACHLOR EPOXIDE	U	U	U
METHOXYCHLOR	U	U	U
TOXAPHENE	U	U	U

NOTES:

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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	SG-C5 (µg/kg)	SG-C6 (µg/kg)	DSG-C6[2] (µg/kg)
4,4'-DDD	120PCD	760CD	890CD
4,4'-DDE	100CD	530CD	590CD
4,4'-DDT	52D	170P	160P
ALDRIN	19PX	U	U
ALPHA CHLORDANE	U	U	U
ALPHA-BHC	U	U	U
AROCLOR - 1016	U	U	U
AROCLOR - 1221	U	U	U
AROCLOR - 1232	U	U	U
AROCLOR - 1242	U	U	U
AROCLOR - 1248	U	U	U
AROCLOR - 1254	U	U	U
AROCLOR - 1260	U	U	U
BETA-BHC	U	15P	16PX
DELTA-BHC	U	U	54PX
DIELDRIN	U	U	U
ENDOSULFAN I	110PD	60PX	70PX
ENDOSULFAN II	20PX	U	U
ENDOSULFAN SULFATE	16PX	U	U
ENDRIN	16PX	U	U
ENDRIN ALDEHYDE	18PX	U	U
ENDRIN KETONE	U	U	U
GAMMA CHLORDANE	U	U	U
GAMMA-BHC	29	U	U
HEPTACHLOR	U	U	U
HEPTACHLOR EPOXIDE	3.0PX	U	U
METHOXYCHLOR	110PX	U	U
TOXAPHENE	U	U	U

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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	SG-D6 (µg/kg)	SG-J6 (µg/kg)	SG-F7 (µg/kg)
4,4'-DDD	1300CD	200C	250CP
4,4'-DDE	850CD	210PC	340CD
4,4'-DDT	290D	84P	150P
ALDRIN	U	U	U
ALPHA CHLORDANE	U	U	U
ALPHA-BHC	24	U	U
AROCLOR - 1016	U	U	U
AROCLOR - 1221	U	U	U
AROCLOR - 1232	U	U	U
AROCLOR - 1242	U	U	U
AROCLOR - 1248	U	U	U
AROCLOR - 1254	U	U	U
AROCLOR - 1260	U	U	U
BETA-BHC	27PX	U	18P
DELTA-BHC	170PD	U	U
DIELDRIN	36PX	U	15P
ENDOSULFAN I	140PX	17PX	51PX
ENDOSULFAN II	U	U	U
ENDOSULFAN SULFATE	U	U	U
ENDRIN	U	U	U
ENDRIN ALDEHYDE	U	U	U
ENDRIN KETONE	U	U	U
GAMMA CHLORDANE	U	U	78
GAMMA-BHC	U	U	U
HEPTACHLOR	U	U	U
HEPTACHLOR EPOXIDE	U	U	U
METHOXYCHLOR	U	U	U
TOXAPHENE	U	U	U

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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	SG-J7 (µg/kg)	SG-G8 (µg/kg)	SG-H8 (µg/kg)
4,4'-DDD	510CD	570CD	580CD
4,4'-DDE	830CD	530CD	560PCD
4,4'-DDT	310D	200	220D
ALDRIN	U	U	U
ALPHA CHLORDANE	U	U	U
ALPHA-BHC	8.9P	U	U
AROCLOR - 1016	U	U	U
AROCLOR - 1221	U	U	U
AROCLOR - 1232	U	U	U
AROCLOR - 1242	U	U	U
AROCLOR - 1248	U	U	U
AROCLOR - 1254	U	U	U
AROCLOR - 1260	U	U	U
BETA-BHC	U	11P	U
DELTA-BHC	130PXD	54PX	U
DIELDRIN	7.9PX	U	U
ENDOSULFAN I	89PXD	45PX	54PX
ENDOSULFAN II	U	U	U
ENDOSULFAN SULFATE	U	U	U
ENDRIN	U	U	U
ENDRIN ALDEHYDE	U	U	U
ENDRIN KETONE	U	U	U
GAMMA CHLORDANE	U	U	U
GAMMA-BHC	U	U	U
HEPTACHLOR	U	U	U
HEPTACHLOR EPOXIDE	U	U	9.2PX
METHOXYCHLOR	U	U	U
TOXAPHENE	U	U	U

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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	SG-G9 (µg/kg)	SG-C10 (µg/kg)	SG-D10 (µg/kg)
4,4'-DDD	440CD	820CD	710CD
4,4'-DDE	410CD	760CD	520CD
4,4'-DDT	180	150P	360PD
ALDRIN	U	U	U
ALPHA CHLORDANE	U	U	U
ALPHA-BHC	U	U	U
AROCLOR - 1016	U	U	U
AROCLOR - 1221	U	U	U
AROCLOR - 1232	U	U	U
AROCLOR - 1242	U	U	U
AROCLOR - 1248	U	U	U
AROCLOR - 1254	U	U	U
AROCLOR - 1260	U	U	U
BETA-BHC	U	11PX	U
DELTA-BHC	33PX	52PX	30PX
DIELDRIN	U	U	U
ENDOSULFAN I	29PX	92PX	64PX
ENDOSULFAN II	U	U	U
ENDOSULFAN SULFATE	U	U	U
ENDRIN	U	U	U
ENDRIN ALDEHYDE	U	U	U
ENDRIN KETONE	U	U	U
GAMMA CHLORDANE	U	U	U
GAMMA-BHC	U	U	U
HEPTACHLOR	U	U	U
HEPTACHLOR EPOXIDE	U	U	U
METHOXYCHLOR	U	U	U
TOXAPHENE	U	U	U

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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	SG-I10 (µg/kg)	SG-BD05 (µg/kg)	SG-BD06 (µg/kg)
4,4'-DDD	560CD	300CD	120PC
4,4'-DDE	1400CD	260CD	150CD
4,4'-DDT	200	170D	34P
ALDRIN	U	U	U
ALPHA CHLORDANE	U	U	U
ALPHA-BHC	8.2	U	U
AROCLOR - 1016	U	U	U
AROCLOR - 1221	U	U	U
AROCLOR - 1232	U	U	U
AROCLOR - 1242	U	U	U
AROCLOR - 1248	U	U	U
AROCLOR - 1254	U	U	U
AROCLOR - 1260	U	U	U
BETA-BHC	8.8PX	U	U
DELTA-BHC	U	22PX	24PX
DIELDRIN	U	U	U
ENDOSULFAN I	89PXD	U	U
ENDOSULFAN II	51	U	U
ENDOSULFAN SULFATE	U	U	U
ENDRIN	15PX	U	U
ENDRIN ALDEHYDE	U	U	U
ENDRIN KETONE	U	U	U
GAMMA CHLORDANE	U	U	U
GAMMA-BHC	U	U	U
HEPTACHLOR	U	U	U
HEPTACHLOR EPOXIDE	17P	U	U
METHOXYCHLOR	U	U	U
TOXAPHENE	U	U	U

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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	SC-C1/02 (µg/kg)	SC-C1/04 (µg/kg)	SC-C2/02 (µg/kg)	SC-C2/04 (µg/kg)	SC-C3/02 (µg/kg)	SC-C3/04 (µg/kg)
4,4'-DDD	70	U	130PCD	20PC	100PCD	U
4,4'-DDE	32	U	710CD	23C	280CD	U
4,4'-DDT	U	U	U	7.2P	U	U
ALDRIN	U	U	U	U	U	U
ALPHA CHLORDANE	U	U	U	U	U	U
ALPHA-BHC	U	U	U	U	U	U
AROCLOR - 1016	U	U	U	U	U	U
AROCLOR - 1221	U	U	U	U	U	U
AROCLOR - 1232	U	U	U	U	U	U
AROCLOR - 1242	U	U	U	U	U	U
AROCLOR - 1248	U	U	U	U	U	U
AROCLOR - 1254	U	U	U	U	U	U
AROCLOR - 1260	U	U	U	U	U	U
BETA-BHC	U	U	U	U	U	U
DELTA-BHC	U	U	U	U	U	U
DIELDRIN	U	U	U	U	U	U
ENDOSULFAN I	U	U	U	U	U	U
ENDOSULFAN II	U	U	U	U	U	U
ENDOSULFAN SULFATE	U	U	U	U	U	U
ENDRIN	U	U	U	U	U	U
ENDRIN ALDEHYDE	U	U	U	U	U	U
ENDRIN KETONE	U	U	U	U	U	U
GAMMA CHLORDANE	U	U	U	U	U	U
GAMMA-BHC	U	U	U	U	U	U
HEPTACHLOR	U	U	U	U	U	U
HEPTACHLOR EPOXIDE	U	U	19	U	U	U
METHOXYCHLOR	U	U	U	U	U	U
TOXAPHENE	U	U	U	U	U	U

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PRELIMINARY SEDIMENT DATA
TARGET COMPOUND LIST (TCL) PESTICIDE/PCB ANALYSIS

Compound	SG-DD01 (µg/kg)	SG-0D06 (µg/kg)	SG-0D17 (µg/kg)	D/SG-0D17 (µg/kg)	SG-0D20 (µg/kg)
4,4'-DDD	73	9.0	4.7P	9.8	59P
4,4'-DDE	70	8.2	9.4P	10P	920PDE
4,4'-DDT	38	U	U	U	U
ALDRIN	U	U	U	6.8PX	34PX
ALPHA CHLORDANE	U	U	U	U	U
ALPHA-BHC	U	U	U	U	U
AROCLOR - 1016	U	U	U	U	U
AROCLOR - 1221	U	U	U	U	U
AROCLOR - 1232	U	U	U	U	U
AROCLOR - 1242	U	U	U	U	U
AROCLOR - 1248	U	U	U	U	U
AROCLOR - 1254	U	U	U	U	U
AROCLOR - 1260	U	U	U	U	U
BETA-BHC	7.3P	7.2P	U	U	U
DELTA-BHC	U	U	5.5PX	9.2PX	76PXD
DIELDRIN	U	U	U	U	U
ENDOSULFAN I	U	U	U	U	U
ENDOSULFAN II	U	U	U	U	33PX
ENDOSULFAN SULFATE	U	U	U	U	U
ENDRIN	U	U	U	U	U
ENDRIN ALDEHYDE	7.6P	U	16PX	8.9PX	23PX
ENDRIN KETONE	U	U	U	U	U
GAMMA CHLORDANE	U	U	2.5PX	14PX	82PXD
GAMMA-BHC	U	U	U	U	U
HEPTACHLOR	U	U	U	U	U
HEPTACHLOR EPOXIDE	U	U	U	8.5P	5.4PX
METHOXYCHLOR	U	U	U	U	U
TOXAPHENE	U	U	U	U	U

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PRELIMINARY SEDIMENT DATA
INORGANIC CONSTITUENTS

Compound	SG-G3 (mg/kg)	SG-H4 (mg/kg)	SG-K4 (mg/kg)	SG-C5 (mg/kg)	SG-C6 (mg/kg)	DSG-C6 (mg/kg)
ANTIMONY	4.8	9.1	2.6	3.7	6.9	2.2
ARSENIC	3.4	6.6	3.7	2.1	6.7	6.0
BERYLLIUM	1.0	1.3	0.8	0.9	1.9	2.2
CADMIUM	0.4	0.5	0.1	0.3	0.4	ND
CHROMIUM	21.3	44.7	30.8	10.5	26.9	29.6
COPPER	25.2	31.8	18.4	3.33	21.5	21.7
CYANIDE	ND[1]	0.47	ND	ND	ND	0.30
LEAD	16.5	28.5	19.5	5.9	26.7	22.4
MERCURY	12.9	21.6	2.8	5.3	7.0	6.9
NICKEL	11.5	20.9	14.1	2.67	13.5	13.9
SELENIUM	ND	ND	0.2	0.1	0.1	0.5
SILVER	0.87	1.18	0.41	0.13	0.38	0.87
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	89.7	13.3	83.0	10.3	104	112

NOTES:

1 ND = Not detected.

PRELIMINARY SEDIMENT DATA
INORGANIC CONSTITUENTS

Compound	SG-D6 (mg/kg)	SG-J6 (mg/kg)	SG-F7 (mg/kg)	SG-J7 (mg/kg)	SG-G8 (mg/kg)	SG-H8 (mg/kg)
ANTIMONY	3.0	6.5	24.6	6.3	6.0	9.5
ARSENIC	7.3	10.1	7.4	7.6	6.9	8.2
BERYLLIUM	2.5	2.5	2.5	1.2	2.0	2.3
CADMIUM	1.0	1.0	0.4	0.5	0.4	0.9
CHROMIUM	33.5	54.5	37.1	18.8	40.8	42.3
COPPER	20.5	45.5	35.0	21.4	28.4	35.9
CYANIDE	0.3	ND	ND	ND	ND	ND
LEAD	22.4	44.2	30.7	15.2	23.8	37.7
MERCURY	4.5	16.5	8.2	15.3	7.6	8.6
NICKEL	22.0	24.5	17.9	11.6	19.6	21.8
SELENIUM	2.4	0.7	0.5	0.6	0.4	0.8
SILVER	1.0	ND	0.42	0.23	0.8	0.9
THALLIUM	0.9	0.8	ND	ND	ND	ND
ZINC	123	205	170	89.1	152	202

PRELIMINARY SEDIMENT DATA
INORGANIC CONSTITUENTS

Compound	SG-G9 (mg/kg)	SG-C10 (mg/kg)	SG-D10 (mg/kg)	SG-I10 (mg/kg)	SG-BD05 (mg/kg)	SG-BD06 (mg/kg)
ANTIMONY	22.5	22.7	20.0	6.2	7.4	10.2
ARSENIC	7.1	8.3	8.4	12.8	4.1	1.6
BERYLLIUM	1.2	1.4	1.6	2.1	2.1	2.3
CADMIUM	0.9	0.1	0.7	0.4	0.5	0.1
CHROMIUM	29.54	35.9	43.2	45.4	39.2	18.5
COPPER	30.0	24.5	27.7	50.4	17.4	12.7
CYANIDE	ND	ND	0.28	ND	0.26	ND
LEAD	24.9	24.7	24.3	32.6	19.3	5.7
MERCURY	7.5	4.2	6.8	30.1	1.3	1.8
NICKEL	17.9	21.4	21.8	22.9	25.3	20.2
SELENIUM	0.7	0.8	0.7	1.2	0.8	0.2
SILVER	0.83	1.36	0.45	0.42	0.29	0.73
THALLIUM	ND	0.5	0.3	ND	ND	ND
ZINC	144	144	152	199	116	88.9

PRELIMINARY SEDIMENT DATA
INORGANIC CONSTITUENTS

Compound	SC-C1/02 (mg/kg)	SC-C1/04 (mg/kg)	SC-C2/02 (mg/kg)	SC-C2/04 (mg/kg)	SC-C3/02 (mg/kg)	SC-C3/04 (mg/kg)
ANTIMONY	ND[1]	ND	ND	ND	ND	ND
ARSENIC	4.3	4.6	2.5	2.2	4.2	3.3
BERYLLIUM	1.4	1.6	0.59	0.50	0.64	0.96
CADMIUM	ND	ND	ND	ND	ND	ND
CHROMIUM	55.4	69.4	28.3	22.5	27.1	35.2
COPPER	16.6	15.1	9.5	9.3	13.1	8.9
CYANIDE	ND	ND	ND	ND	ND	ND
LEAD	26.2	21.0	26.4	24.6	16.1	18.7
MERCURY	14.8	1.7	5.1	5.1	2.7	1.2
NICKEL	26.0	28.9	6.5	6.5	10.0	10.8
SELENIUM	ND	ND	ND	ND	0.58	0.59
SILVER	ND	ND	ND	ND	ND	0.49
THALLIUM	ND	ND	ND	ND	ND	ND
ZINC	86.4	85.0	26.4	21.9	47.1	41.1

NOTES:

1 ND = Not detected.

PRELIMINARY SEDIMENT DATA
INORGANIC CONSTITUENTS

Compound	SG-DD01 (mg/kg)	SG-0D06 (mg/kg)	SG-0D17 (mg/kg)	D/SG-0D17 (mg/kg)	SG-0D20 (mg/kg)
ANTIMONY	ND	ND	ND	ND	ND
ARSENIC	16.1	4.8	1.3	3.3	5.4
BERYLLIUM	3.7	1.0	0.40	0.39	0.65
CADMIUM	0.78	ND	0.27	0.28	ND
CHROMIUM	26.7	21.0	9.3	10.3	14.4
COPPER	19.0	18.4	4.0	4.6	5.1
CYANIDE	ND	ND	ND	ND	0.34
LEAD	13.1	10.7	5.3	4.6	11.6
MERCURY	3.0	1.8	0.87	0.59	0.41
NICKEL	27.9	9.6	7.5	10.7	9.5
SELENIUM	0.65	0.64	ND	ND	0.42
SILVER	ND	ND	ND	ND	ND
THALLIUM	ND	ND	ND	ND	ND
ZINC	192	71.7	89.9	80.2	68.9